SONY

OPTICAL TO ELECTRICAL CONVERTER

HKPF-SP021

ELECTRICAL TO OPTICAL CONVERTER

HKPF-SP022

DIGITAL VIDEO DISTRIBUTION AMP

HKPF-SP003

MAINTENANCE MANUAL

1st Edition

Serial No. 10001 and Higher (HKPF-SP021)

Serial No. 10001 and Higher (HKPF-SP022)

Serial No. 10001 and Higher (HKPF-SP003)

⚠警告

このマニュアルは，サービス専用です。
お客様が，このマニュアルに記載された設置や保守，点検，修理などを行うと感電や火災，人身事故につながることがあります。
危険をさけるため，サービストレーニングを受けた技術者のみご使用ください。

⚠WARNING

This manual is intended for qualified service personnel only.
To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

⚠WARNUNG

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.
Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

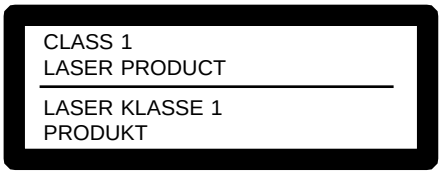
⚠ AVERTISSEMENT

Ce manual est destiné uniquement aux personnes compétentes en charge de l’entretien. Afin de réduire les risques de décharge électrique, d’incendie ou de blessure n’effectuer que les réparations indiquées dans le mode d’emploi à moins d’être qualifié pour en effectuer d’autres. Pour toute réparation faire appel à une personne compétente uniquement.

(For HKPF-SP022)

Laser Diode Properties

Material	: InGaAsP
Wave length	: 1310 nm
Emission duration	: Continuous
Laser output power (average)	: 0.177 mW (max.)



This HKPF-SP022 is classified as a CLASS 1 LASER PRODUCT.
The CLASS 1 LASER PRODUCT label is located on the optical module.

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Manual Structure

Purpose of this manual

This manual is the maintenance manual of following models.

Optical To Electrical Converter	HKPF-SP021
Electrical To Optical Converter	HKPF-SP022
Digital Video Distribution AMP	HKPF-SP003

This manual is intended for use by trained system and service engineers, and describes the information for maintenance and detailed service.

Contents

This manual is organized by following sections.

Section 1 Service Overview

This section explains the notes on repair parts, replacement of IC link, STATUS menu, and operation after replacement of IC210 and IC002.

Section 2 Spare Parts

This section describes the spare parts.

Section 3 Semiconductor Pin Assignments

This section contains information on semiconductors used for unit.
It includes a complete list of the semiconductors and their ID Nos. for retrieving information on “Semiconductor Pin Assignments” CD-ROM, which is available separately.
Please refer to this section together with the “Semiconductor Pin Assignments” CD-ROM.
Information on the semiconductors not contained in the CD-ROM at the time of issue of this manual, if any, is given in this section as well.

Section 4 Block Diagrams

This section describes the block diagram of each board.

Section 5 Schematic Diagrams

This section describes the schematic diagrams of each board.

Section 6 Board Layouts

This section describes the board layouts of each board.

Related manuals

The following manuals are prepared for HKPF-SP021/SP022/SP003.

- **HKPF-SP021 Installation Manual (Supplied with HKPF-SP021)**
- **HKPF-SP022 Installation Manual (Supplied with HKPF-SP022)**
- **HKPF-SP003 Installation Manual (Supplied with HKPF-SP003)**
  These manuals describe the information on installing each model.

- **“Semiconductor Pin Assignments” CD-ROM (Available on request)**
  This “Semiconductor Pin Assignments” CD-ROM allows you to search for semiconductors used in Communication System Solutions Network Company equipment.
  Semiconductors that cannot be searched for on this CD-ROM are listed in the service manual for the corresponding unit. The service manual contains a complete list of all semiconductors and their ID Nos., and thus should be used together with the CD-ROM.
  Part number: 9-968-546-XX

Trademarks

Trademarks and registered trademarks used in this manual are follows.

- Windows and WindowsNT are registered trademarks of Microsoft Corporation.
- IBM and AT are registered trademarks of International Business Machine, Inc..
- HyperTerminal is a registered trademark of Hilgraeve Inc..

Section 1
Service Overview

1-1. Notes on Repair Parts

1. Safety Related Components Warning

WARNING

Components marked ⚠ are critical to safe operation. Therefore, specified parts should be used in the case of replacement.

2. Standardization of Parts

Some repair parts supplied by Sony differ from those used for the unit. These are because of parts commonality and improvement.
Parts list has the present standardized repair parts.

3. Stock of Parts

Parts marked with “o” at SP (Supply Code) column of the spare parts list may not be stocked. Therefore, the delivery date will be delayed.

1-2. Replacement of Fuse

WARNING

A fuse is critical parts to safe operation.
Replace this component with Sony parts whose part numbers appear in this manual published by Sony.
If not, this may cause a fire or electric shock.
Be sure to use the specified component in this manual.

The fuses are mounted on the boards below. Be sure to replace with the specified fuse as shown below after removing the foreign substances that may cause the shorts.

MA-105 board (HKPF-SP021/SP022/SP003)

Ref No. (Address)	Description	Parts No.
F101 (G-2)	Fuse Chip 2A/125V	⚠1-533-999-21

CN-2033 board (HKPF-SP021)

Ref No. (Address)	Description	Parts No.
F001 (A-3)	Fuse Chip 2A/125V	⚠1-533-999-21

CN-2034 board (HKPF-SP022)

Ref No. (Address)	Description	Parts No.
F001 (A-3)	Fuse Chip 2A/125V	⚠1-533-999-21

CN-2035 board (HKPF-SP003)

Ref No. (Address)	Description	Parts No.
F001 (A-3)	Fuse Chip 2A/125V	⚠1-533-999-21

1-3. Status Menu

The status of each model can be confirmed by connecting a personal computer to the MA-105 board. (Use a status menu.)

In the status menu, the following items can be confirmed.

Item	Description
Front Board Information	Displays the information on the MA-105 board.
Rear Board Information	Displays the information on the connector board.
Status Information	Displays the information on this unit.
Setting Information	Displays the setting values (a reclocker and a warning output at the non-input time of a signal) of this unit.

Required Equipment

- Personal computer (referred to as PC hereafter) IBM-PC/AT compatible machine in which terminal software was installed, Windows 95/98, and Windows NT
- Communication software: HyperTerminal is recommended.
- Communication cable for maintenance (3-pin to 9-pin) Sony parts No.: J-6422-200-A

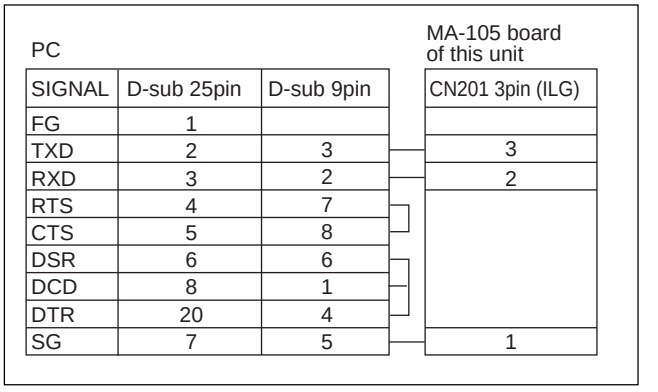
Connection and Setting

1. Set the power switches of PFV-SP3300, in which this unit is installed, to OFF.
2. Remove the front panel of PFV-SP3300. (Refer to the installation manual of PFV-SP3300.)
3. Connect the maintenance connector (CN201) on the MA-105 board of this unit and the RS-232C connector (COM1) of PC using a communication cable for maintenance.

   Note

   In the wiring of a communicable cable for maintenance, the pin number varies depending on the connector used (D-sub 25-pin or 9-pin connector). (Refer to “Wiring with PC”.)

Wiring with PC



4. Set the power switches of PC to ON.
5. Start the communication software and set the communication conditions as described below.

Serial port	COM1 (Set to the RS-232C connector.)
Baud rate	38400 bit/s
Data	8 bit
Parity	None
Stop	1
Flow control	None

6. Set the power switches of PFV-SP3300 to ON.
7. Press the Enter key. The main menu screen is displayed.

Display sample (HKPF-SP022)

```
HKPF-SP022        Control Program   V1.00

[MAIN MENU]
   A:  Status Menu
   B:  Set Up Menu
   Z:  Service Menu

   Q:  Quit

>
```

Note

For the B (Set Up Menu) , refer to the Installation manual. Z (Service Menu) is the menu used for adjustment at the factory. Press the Enter key on the password screen when having entered the menu incorrectly.

8. Enter “a” or “A” and press the Enter key.
   The status menu is displayed.

```
[STATUS MENU]
  A: Front Board Information
  B: Rear Board Information
  C: Status Information
  D: Setting Information

  Q: Quit
```

A: Front Board Information

1. Enter “a” or “A” from the status menu screen and press the Enter key.
   The number of the slot in which the MA-105 board is installed and the board information written in IC210 (EEPROM of I²C) are then displayed.

Display sample (HKPF-SP022)

```
[STATUS MENU]
  A: Front Board Information
  B: Rear Board Information
  C: Status Information
  D: Setting Information

  Q: Quit

>a

[FRONT BOARD INFORMATION]
  Slot No.           : 2
  Vendor Name        : Sony Corporation
  Product Name       : ELECTRICAL TO OPTICAL CONVERTER
  Function           : E/O CONV
  Model Name         : HKPF-SP022
  Model Spec         : SYM
  Board Name         : MA-105
  Board Spec         : 1-679-672-11
  Serial No.         : 10001
  Original Version   : 1.00
  Revised Version    : 1.00
  Frame Max current  :
  Service No.        :
  Service Comment    :

>
```

2. Press the Enter key.
   The display returns to the status menu screen.
3. Select another item in the status menu or perform the “Exiting from the Menu”.

B: Rear Board Information

1. Enter “b” or “B” from the status menu screen and press the Enter key.
   The number of the slot in which the connector board is installed and the board information written in IC002 (EEPROM of I²C) are then displayed.

Display sample (HKPF-SP022)

```
[STATUS MENU]
  A: Front Board Information
  B: Rear Board Information
  C: Status Information
  D: Setting Information

  Q: Quit

>b

[REAR BOARD INFORMATION]
  Slot No.           : 2
  Vendor Name        : Sony Corporation
  Product Name       : ELECTRICAL TO OPTICAL CONVERTER
  Function           : E/O CONV
  Model Name         : HKPF-SP022
  Model Spec         : SYM
  Board Name         : CN-2034
  Board Spec         : 1-679-670-12
  Serial No.         : 10001
  Original Version   : 1.00
  Revised Version    : 1.00
  Frame Max current  :
  Service No.        :
  Service Comment    :

>
```

2. Press the Enter key.
   The display returns to the status menu screen.
3. Select another item in the status menu or perform the “Exiting from the Menu”.

C: Status Information

1. Enter “c” or “C” from the status menu screen and press the Enter key.
   The information on this unit is then displayed.

```
[STATUS MENU]
  A: Front Board Information
  B: Rear Board Information
  C: Status Information
  D: Setting Information

  Q: Quit

>c

[STATUS INFORMATION]
  CN Detect      : EXIST
  Input Detect   : NONE
  HD Reclock     : UNLOCK
  SD Reclock     : UNLOCK
  Signal Format  : ----
  CN Power       : OK
  Error/Warning  : OK
```

The details of the display are shown below.

CN Detect

Display	Description
EXIST	Connector board is installed.
NONE	No connector board is installed.

Input Detect

Display	Description
EXIST	A signal is input to the input connector.
NONE	No signal is input to the input connector.

HD Reclock

Display	Description
LOCK	An input signal is reclocked as an HD signal.
UNLOCK	An input signal is not reclocked as an HD signal.

SD Reclock

Display	Description
LOCK	An input signal is reclocked as an SD signal.
UNLOCK	An input signal is not reclocked as an SD signal.

Signal Format

Display	Description
SD 143Mb/s	SD input signal (143 Mbps)
SD 177Mb/s	SD input signal (177 Mbps)
SD 270Mb/s	SD input signal (270 Mbps)
SD 360Mb/s	SD input signal (360 Mbps)
SD 540Mb/s	SD input signal (540 Mbps)
HD	HD input signal
----	Input signal other than described above

CN Power

Display	Description
OK	The +5 V power supply on the connector board is normal.
NG	The +5 V power supply on the connector board is abnormal.

Error/Warning

Display	Description
OK	Normal operation
WARNING	A normal signal is not input to the input connector.
ERROR	・The +5 V power supply on the connector board is abnormal. ・The connector board is not connected or the connector board of a different model is detected. ・The hardware defect of the MA-105 board is detected.

2. Press the Enter key.
   The display returns to the status menu screen.
3. Select another item in the status menu or perform the “Exiting from the Menu”.

D: Setting Information

1. Enter “d” or “D” from the status menu screen and press the Enter key.
   The setting (AUTO/OFF) of a reclocker and the warning output setting (ON/OFF) at the non-input time of a signal are then displayed.

```
[STATUS MENU]
  A: Front Board Information
  B: Rear Board Information
  C: Status Information
  D: Setting Information

  Q: Quit

>d

[SETTING INFORMATION]
  Reclock AUTO/OFF              : AUTO
  Input Detect Warning ON/OFF : OFF

>
```

The details of the display are shown below.

Reclock AUTO/OFF

Display	Description
AUTO (Default)	Shapes the waveform of an input signal automatically.
OFF	Not shape the waveform of an input signal.

Input Detect Warning ON/OFF

Display	Description
ON	Outputs a warning signal when no signal is input.
OFF (Default)	Not output a warning signal when no signal is input.

2. Press the Enter key.
   The display returns to the status menu screen.
3. Select another item in the status menu or perform the “Exiting from the Menu”.

Exiting from the Menu

1. Enter “Q” from the status menu screen and press the Enter key.
   The display returns to the main menu screen.
2. Enter “Q” again and press the Enter key.
   The display exits from the menu screen.

1-4. Operation after Replacement of IC210 or IC002.

For the boards below, board information must be newly written when the ROM on the board is replaced.

- MA-105 board (after replacement of IC210)
- CN-2033 board (after replacement of IC002)
- CN-2034 board (after replacement of IC002)
- CN-2035 board (after replacement of IC002)

There are two ways to write the board information.

- Enter the board information directly using a menu.
- Create a data file in advance and download it.

Note

In any case, it is necessary to enter the version of hardware. For the version of hardware, contact your local Sony Sales Office/Service Center.

Required Equipment

- Personal computer (referred to as PC hereafter)
  IBM-PC/AT compatible machine in which terminal software was installed, Windows 95/98, and Windows NT
- Communication software: HyperTerminal is recommended.
- Communication cable for maintenance (3-pin to 9-pin)
  Sony parts No.: J-6422-200-A

1-4-1. Writing the Board Information by Direct Entry

1. Display the main menu screen. (Refer to steps 1 to 7 in “Connection and Setting” of “1-3. Status Menu”.)
2. At the prompt “>” or “Error>” on the main menu screen, enter “@sony” and press the Enter key. The factory menu is then displayed.

Display sample (HKPF-SP003)

```
HKPF-SP003        Control Program  V1.00

[MAIN MENU]
   A: Status Menu
   B: Setup Menu
   Z: Service Menu

   Q: Quit

 >@sony
```

```
 [FACTORY MENU]
   A: I2C Version Data     (MA)
   B: I2C Version Data     (CN)
   C: I2C All Data         (MA)
   D: I2C All Data         (CN)
   E: I2C All Data         (IF)
   F: Download I2C Data (MA)
   G: Download I2C Data (CN)
   H: Download I2C Data (IF)
    I: I2C Serial No. Data  (MA)
    J: I2C Serial No. Data  (CN)
    K: I2C Serial No. Data  (IF)
    L: IF Board Information
   M: Download Program

   Q: Quit

 >
```

Note

The subsequent write operation varies depending on the board.

In the case of MA-105 board

1. At the prompt ">" or "Error>" on the factory menu screen, enter "c" or "C" and press the Enter key.

```
[FACTORY MENU]
  A: I2C Version Data     (MA)
  B: I2C Version Data     (CN)
  C: I2C All Data         (MA)
  D: I2C All Data         (CN)
  E: I2C All Data         (IF)
  F: Download I2C Data    (MA)
  G: Download I2C Data    (CN)
  H: Download I2C Data    (IF)
  I: I2C Serial No. Data  (MA)
  J: I2C Serial No. Data  (CN)
  K: I2C Serial No. Data  (IF)
  L: IF Board Information
  M: Download Program

  Q: Quit

>c
```

2. At the prompt "==>", enter as described below (indicated by the shaded portion).

Notes

- The entered characters vary depending on the model used.
- For the version of hardware, contact your local Sony Sales Office/Service Center.

In the case of HKPF-SP021

```
[I2C All Data (MA)]
Vendor Name       (max  16 char) ==> Sony Corporation
Product Name      (max  40 char) ==> OPTICAL TO ELECTRICAL CONVERTER
Function          (max  16 char) ==> O/E CONV
Model Name        (max  16 char) ==> HKPF-SP021
Model Spec        (max   8 char) ==> SYM
Board Name        (max   8 char) ==> MA-105
Board Spec        (max  16 char) ==> 1-679-672-xx  ←Enter the part number of the MA-105 board.
Serial No.        (max   8 char) ==> xxxxx         ←Enter the serial number of products.
Original Version  (max   8 char) ==> Vx.xx         ←Enter the factory-shipped hardware version.
Revised Version   (max   8 char) ==> Vx.xx         ←Enter the current hardware version.
Frame Max Current (max   8 char) ==>
Service No.       (max   4 char) ==>
Service Comment   (max  20 char) ==>
```

In the case of HKPF-SP022

```
[I2C All Data (MA)]
Vendor Name        (max  16 char) ==> Sony Corporation
Product Name       (max  40 char) ==> ELECTRICAL TO OPTICAL CONVERTER
Function           (max  16 char) ==> E/O CONV
Model Name         (max  16 char) ==> HKPF-SP022
Model Spec         (max   8 char) ==> SYM
Board Name         (max   8 char) ==> MA-105
Board Spec         (max  16 char) ==> 1-679-672-xx  ←Enter the part number of the MA-105 board.
Serial No.         (max   8 char) ==> xxxxx         ←Enter the serial number of products.
Original Version   (max   8 char) ==> Vx.xx         ←Enter the factory-shipped hardware version.
Revised Version    (max   8 char) ==> Vx.xx         ←Enter the current hardware version.
Frame Max Current  (max   8 char) ==>
Service No.        (max   4 char) ==>
Service Comment    (max  20 char) ==>
```

In the case of HKPF-SP003

```
[I2C All Data (MA)]
Vendor Name        (max  16 char) ==> Sony Corporation
Product Name       (max  40 char) ==> DIGITAL VIDEO DISTRIBUTION AMP
Function           (max  16 char) ==> D-VDA
Model Name         (max  16 char) ==> HKPF-SP003
Model Spec         (max   8 char) ==> SYM
Board Name         (max   8 char) ==> MA-105
Board Spec         (max  16 char) ==> 1-679-672-xx  ←Enter the part number of the MA-105 board.
Serial No.         (max   8 char) ==> xxxxx         ←Enter the serial number of products.
Original Version   (max   8 char) ==> Vx.xx         ←Enter the factory-shipped hardware version.
Revised Version    (max   8 char) ==> Vx.xx         ←Enter the current hardware version.
Frame Max Current  (max   8 char) ==>
Service No.        (max   4 char) ==>
Service Comment    (max  20 char) ==>
```

In the case of CN-2033/2034/2035

1. At the prompt “>” or “Error>” on the factory menu screen, enter “d” or “D” and press the Enter key.

```
[FACTORY MENU]
  A: I2C Version Data     (MA)
  B: I2C Version Data     (CN)
  C: I2C All Data         (MA)
  D: I2C All Data         (CN)
  E: I2C All Data         (IF)
  F: Download I2C Data    (MA)
  G: Download I2C Data    (CN)
  H: Download I2C Data    (IF)
  I: I2C Serial No. Data  (MA)
  J: I2C Serial No. Data  (CN)
  K: I2C Serial No. Data  (IF)
  L: IF Board Information
  M: Download Program

  Q: Quit

>d
```

2. At the prompt "==>", enter as described below (indicated by the portion).

Notes

- The entered characters vary depending on the model used.
- For the version of hardware, contact your local Sony Sales Office/Service Center.

In the case of HKPF-SP021 (CN-2033 board)

```
[I2C All Data (CN)]
Vendor Name        (max  16 char) ==> Sony Corporation
Product Name       (max  40 char) ==> OPTICAL TO ELECTRICAL CONVERTER
Function           (max  16 char) ==> O/E CONV
Model Name         (max  16 char) ==> HKPF-SP021
Model Spec         (max   8 char) ==> SYM
Board Name         (max   8 char) ==> CN-2033
Board Spec         (max  16 char) ==> 1-679-669-xx  ← Enter the part number of the CN-2033 board.
Serial No.         (max   8 char) ==> xxxxx         ← Enter the serial number of products.
Original Version   (max   8 char) ==> Vx.xx         ← Enter the factory-shipped hardware version.
Revised Version    (max   8 char) ==> Vx.xx         ← Enter the current hardware version.
Frame Max Current  (max   8 char) ==>
Service No.        (max   4 char) ==>
Service Comment    (max  20 char) ==>
```

In the case of HKPF-SP022 (CN-2034 board)

```
[I2C All Data (CN)]
Vendor Name        (max  16 char) ==> Sony Corporation
Product Name       (max  40 char) ==> ELECTRICAL TO OPTICAL CONVERTER
Function           (max  16 char) ==> E/O CONV
Model Name         (max  16 char) ==> HKPF-SP022
Model Spec         (max   8 char) ==> SYM
Board Name         (max   8 char) ==> CN-2034
Board Spec         (max  16 char) ==> 1-679-670-xx  ← Enter the part number of the CN-2034 board.
Serial No.         (max   8 char) ==> xxxxx         ← Enter the serial number of products.
Original Version   (max   8 char) ==> Vx.xx         ← Enter the factory-shipped hardware version.
Revised Version    (max   8 char) ==> Vx.xx         ← Enter the current hardware version.
Frame Max Current  (max   8 char) ==>
Service No.        (max   4 char) ==>
Service Comment    (max  20 char) ==>
```

In the case of HKPF-SP003 (CN-2035 board)

```
[I2C All Data (CN)]
Vendor Name        (max  16 char) ==> Sony Corporation
Product Name       (max  40 char) ==> DIGITAL VIDEO DISTRIBUTION AMP
Function           (max  16 char) ==> D-VDA
Model Name         (max  16 char) ==> HKPF-SP003
Model Spec         (max   8 char) ==> SYM
Board Name         (max   8 char) ==> CN-2035
Board Spec         (max  16 char) ==> 1-679-671-xx  ← Enter the part number of the CN-2035 board.
Serial No.         (max   8 char) ==> xxxxx         ← Enter the serial number of products.
Original Version   (max   8 char) ==> Vx.xx         ← Enter the factory-shipped hardware version.
Revised Version    (max   8 char) ==> Vx.xx         ← Enter the current hardware version.
Frame Max Current  (max   8 char) ==>
Service No.        (max   4 char) ==>
Service Comment    (max  20 char) ==>
```

1-4-2. Writing the Board Information by Data Downloading

1. Display the main menu screen. (Refer to steps 1 to 7 in "Connection and Setting" of "1-3. Status Menu".)

   Note

   In step 5 (for setting of communication conditions), set the items below in addition.
   Delay (line): 10 msec
   Delay (character): 10 msec
2. At the prompt ">" or "Error>" on the main menu screen, enter "@sony" and press the Enter key. The factory menu is then displayed.

Display sample (HKPF-SP003)

```
HKPF-SP003        Control Program  V1.00

[MAIN MENU]
   A: Status Menu
   B: Setup Menu
   Z: Service Menu

   Q: Quit

 >@sony
```

```
[FACTORY MENU]
   A: I2C Version Data     (MA)
   B: I2C Version Data     (CN)
   C: I2C All Data         (MA)
   D: I2C All Data         (CN)
   E: I2C All Data         (IF)
   F: Download I2C Data    (MA)
   G: Download I2C Data    (CN)
   H: Download I2C Data    (IF)
   I: I2C Serial No. Data  (MA)
   J: I2C Serial No. Data  (CN)
   K: I2C Serial No. Data  (IF)
   L: IF Board Information
   M: Download Program

   Q: Quit

 >
```

Note

The subsequent writing operation varies depending on the board.

In the case of MA-105 board

1. Create a data file.
   (1) Open a text file.
   (2) 1st to 10th lines: Enter the items (indicated by the ▒ portion) described on pages 1-7 and 1-8.
   (3) 11th to 13th lines: Press the Enter key.
   (4) Save the data file in an arbitrary directory.

Example) For HKPF-SP021 (↓ mark: Paragraph mark)

```
Sony Corporation ↓
OPTICAL TO ELECTRICAL CONVERTER ↓
O/E CONV ↓
HKPF-SP021 ↓
SYM ↓                          ┐
MA-105 ↓                       ┘ Enter the part number of the MA-105 board.
1-679-672-11↓ ←                  Enter the serial number of products.
10001 ↓       ←                ┐ Enter the factory-shipped hardware
V1.00 ↓       ←                ┘ version.
V1.00 ↓       ←                  Enter the current hardware version.
↓
↓
↓
```

2. At the prompt ">" or "Error>" on the factory menu screen, enter "f" or "F" and press the Enter key.

```
[FACTORY MENU]
   A: I2C Version Data     (MA)
   B: I2C Version Data     (CN)
   C: I2C All Data         (MA)
   D: I2C All Data         (CN)
   E: I2C All Data         (IF)
   F: Download I2C Data    (MA)
   G: Download I2C Data    (CN)
   H: Download I2C Data    (IF)
   I: I2C Serial No. Data  (MA)
   J: I2C Serial No. Data  (CN)
   K: I2C Serial No. Data  (IF)
   L: IF Board Information
   M: Download Program

   Q: Quit

 >f
```

3. After "start>" is displayed, select the data file from "Send Text File" menu on the terminal software.

```
>f
[I2C Data Download (MA)]
start>
```

4. The contents of written data are displayed. After the writing operation is completed, a prompt ">" or "Error>" is displayed.

Display sample

```
>f
[I2C Data Download (MA)]
start>Sony Corporation
OPTICAL TO ELECTRICAL CONVERTER
O/E CONV
HKPF-SP021
SYM
MA-105
1-679-672-11
10001
1.00
1.00



Writing!!

[FRONT BOARD INFORMATION]
  Slot No.          : 3
  Vendor Name       : Sony Corporation
  Product Name      : OPTICAL TO ELECTRICAL CONVERTER
  Function          : O/E CONV
  Model Name        : HKPF-SP021
  Model Spec        : SYM
  Board Name        : MA-105
  Board Spec        : 1-679-672-11
  Serial No.        : 10001
  Original Version  : 1.00
  Revised Version   : 1.00
  Frame Max current :
  Service No.       :
  Service Comment   :

>
>
```

In the case of CN-2033/2034/2035

1. Create a data file.
   (1) Open a text file.
   (2) 1st to 10th lines: Enter the items (indicated by the ▒▒ portion) described on page 1-9.
   (3) 11th to 13th lines: Press the Enter key.
   (4) Save the data file in an arbitrary directory.

Example) For HKPF-SP003 (CN-2035 board)
(↓ mark: Paragraph mark)

```
Sony Corporation ↓
DIGITAL VIDEO DISTRIBUTION AMP ↓
D-VDA ↓
HKPF-SP003 ↓
SYM ↓                          ┐
CN-2035 ↓                      ├ Enter the part number of the MA-105 board.
1-679-671-11↓ ←                ┘
10001 ↓ ←                      ┐ Enter the serial number of products.
V1.00 ↓ ←                      ┘ Enter the factory-shipped hardware version.
V1.00 ↓ ←                        Enter the current hardware version.
↓
↓
↓
```

2. At the prompt ">" or "Error>" on the factory menu screen, enter "g" or "G" and press the Enter key.

```
[FACTORY MENU]
  A: I2C Version Data     (MA)
  B: I2C Version Data     (CN)
  C: I2C All Data         (MA)
  D: I2C All Data         (CN)
  E: I2C All Data         (IF)
  F: Download I2C Data    (MA)
  G: Download I2C Data    (CN)
  H: Download I2C Data    (IF)
  I: I2C Serial No. Data  (MA)
  J: I2C Serial No. Data  (CN)
  K: I2C Serial No. Data  (IF)
  L: IF Board Information
  M: Download Program

  Q: Quit

>g
```

3. After "start>" is displayed, select the data file from "Send Text File" menu on the terminal software.

```
>g
[I2C Data Download (CN)]
start>
```

4. The contents of written data are displayed. After the writing operation is completed, a prompt “>” or “Error>” is displayed.

Display sample

```
>g
[I2C Data Download (CN)]
start>Sony Corporation
DIGITAL VIDEO DISTRIBUTION AMP
D-VDA
HKPF-SP003
SYM
CN-2035
1-679-671-11
10001
1.00
1.00



Writing!!

[REAR BOARD INFORMATION]
   Slot No.              : 0
   Vendor Name           : Sony Corporation
   Product Name          : DIGITAL VIDEO DISTRIBUTION AMP
   Function              : D-VDA
   Model Name            : HKPF-SP003
   Model Spec            : SYM
   Board Name            : CN-2035
   Board Spec            : 1-679-671-11
   Serial No.            : 10001
   Original Version      : 1.00
   Revised Version       : 1.00
   Frame Max current     :
   Service No.           :
   Service Comment       :

>
>
```

Section 2
Spare Parts

CN-2033 BOARD ;HKPF-SP021

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8326-980-A	o	MOUNTED CIRCUIT BOARD, CN-2033
1pc	3-629-411-02	o	PANEL(OE),CN
1pc	3-631-763-01	o	SHEET,THERM
6pcs	7-621-770-87	s	SCREW +B2.6X5
1pc	7-682-546-04	s	SCREW +B3X5
C001	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C002	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C003	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C004	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C006	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C007	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C008	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C009	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C010	1-164-156-11	s	CAPACITOR,CERAMIC 0.1MF/25V F
C011	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C012	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C013	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C014	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C015	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C016	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C017	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C018	1-107-689-21	s	CAPACITOR,TANTALUM 1MF/35V
C019	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C101	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C102	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C103	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C104	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C105	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C106	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C107	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C202	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C204	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C205	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C206	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C207	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C212	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C309	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C312	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C313	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C316	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C317	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C319	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C320	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C321	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C323	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C324	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C325	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C404	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V

(CN-2033 BOARD ;HKPF-SP021)

Ref. No. or Q'ty	Part No.	SP	Description
C405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C408	1-162-965-11	s	CAPACITOR,CERAMIC 1500PF/50V B
C410	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C418	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN101	--PENDING---	s	CONNECTOR, LIGHT
CN301	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN302	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN303	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
D001	8-719-987-43	s	LED CL-150PG-CD
D002	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D003	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D402	8-719-988-61	s	DIODE 1SS355TE-17
D403	8-719-989-97	s	LED CL-150SD-CD
D404	8-719-989-97	s	LED CL-150SD-CD
F001	⚠ 1-533-999-11	s	FUSE CHIP 2A/125V (6125)
IC001	8-759-937-36	s	IC TL1451ACNS
IC002	8-759-678-06	s	IC CAT24WC02JI-TE13
IC101	8-759-422-39	s	IC MC100EL11DR2
IC201	8-759-643-03	s	IC GS1515-CTM
IC302	8-759-638-48	s	IC GS1508-CTA
IC303	8-759-638-48	s	IC GS1508-CTA
IC304	8-759-638-48	s	IC GS1508-CTA
IC401	8-759-569-56	s	IC MC100EL57DR2
IC402	8-759-684-99	s	IC GS9035BCTJ(S25)
L001	1-414-617-11	s	INDUCTOR (POWER) 10UH
L002	1-469-668-11	s	INDUCTOR 33UH
L003	1-424-642-11	s	COIL, CHOKE 47UH
L301	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L302	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L303	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L401	1-424-643-11	s	COIL, CHOKE 10UH
Q001	8-729-045-53	s	TRANSISTOR SI4431DY-T1
Q002	8-729-031-39	s	TRANSISTOR MTD20N03HDL
Q003	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q004	8-729-112-65	s	TRANSISTOR 2SA1462
Q005	8-729-012-35	s	TRANSISTOR 2SK711-BL
Q006	8-729-924-65	s	TRANSISTOR DTC123YU
Q401	8-729-105-68	s	TRANSISTOR 2SC3356-K
Q402	8-729-028-81	s	TRANSISTOR DTA123JUA-T106
Q403	8-729-117-32	s	TRANSISTOR 2SC4177
R004	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R005	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R006	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R007	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R008	1-218-660-91	s	RESISTOR,CHIP 47 1/16W (1608)

(CN-2033 BOARD ;HKPF-SP021)

Ref. No. or Q'ty	Part No.	SP	Description
R009	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R010	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R011	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R012	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R013	1-218-703-11	s	RESISTOR,CHIP 3.0K 1/16(1608)
R014	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R015	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R016	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R017	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R018	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R019	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R020	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R021	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R022	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R023	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R024	1-218-728-11	s	RESISTOR,CHIP 33K 1/16W
R025	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R026	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R027	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R028	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R029	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R030	1-218-735-11	s	RESISTOR CHIP 62K 1/16W(1608)
R103	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R104	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R105	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R106	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R107	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R108	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R202	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R203	1-218-644-11	s	RESISTOR,CHIP 10 1/16W
R204	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R205	1-218-667-11	s	RESISTOR,CHIP 91 1/16W (1608)
R206	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R207	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R303	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R307	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R309	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R310	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R311	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R312	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R313	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R314	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R317	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R318	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R319	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R320	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R321	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R322	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R325	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R326	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R327	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R329	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R330	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R331	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R333	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R334	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R335	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R401	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R402	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)

(CN-2033 BOARD ;HKPF-SP021)

Ref. No. or Q'ty	Part No.	SP	Description
R403	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R404	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R405	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R406	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R407	1-216-857-11	s	RESISTOR,CHIP 1M 1/16W(1608)
R408	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R409	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R410	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R411	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R414	1-218-682-11	s	RESISTOR,CHIP 390 1/16W (1608)
R415	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R416	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R417	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R418	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R419	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R420	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R421	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R422	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R424	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R425	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R426	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R427	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R429	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R430	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R431	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R432	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R433	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
X201	1-781-718-11	s	OSCILLATOR, VOLTAGE CONTROL

CN-2034 BOARD ;HKPF-SP022

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8326-986-A	o	MOUNTED CIRCUIT BOARD, CN-2034
1pc	3-629-410-02	o	PANEL(EO),CN
1pc	3-631-763-01	o	SHEET,THERM
4pcs	7-621-770-87	s	SCREW +B2.6X5
2pc	7-682-546-04	s	SCREW +B3X5
C001	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C002	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C003	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C004	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C006	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C007	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C008	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C009	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C010	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C011	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C012	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C013	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C014	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C015	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C016	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C017	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C018	1-107-689-21	s	CAPACITOR,TANTALUM 1MF/35V
C019	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C101	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C102	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C103	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C202	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C204	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C205	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C206	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C207	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C212	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C301	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C302	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C303	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C304	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C319	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C323	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C404	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C408	1-162-965-11	s	CAPACITOR,CERAMIC 1500PF/50V B
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF

(CN-2034 BOARD ;HKPF-SP022)

Ref. No. or Q'ty	Part No.	SP	Description
C414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C418	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN101	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN301	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN302	--PENDING---	s	CONNECTOR, LIGHT
D001	8-719-987-43	s	LED CL-150PG-CD
D002	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D003	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D402	8-719-988-61	s	DIODE 1SS355TE-17
D403	8-719-989-97	s	LED CL-150SD-CD
D404	8-719-989-97	s	LED CL-150SD-CD
F001	⚠ 1-533-999-11	s	FUSE CHIP 2A/125V (6125)
IC001	8-759-937-36	s	IC TL1451ACNS
IC002	8-759-678-06	s	IC CAT24WC02JI-TE13
IC101	8-759-638-49	s	IC GS1504-CTD
IC201	8-759-643-03	s	IC GS1515-CTM
IC302	8-759-638-48	s	IC GS1508-CTA
IC401	8-759-569-56	s	IC MC100EL57DR2
IC402	8-759-684-99	s	IC GS9035BCTJ(S25)
L001	1-414-617-11	s	INDUCTOR (POWER) 10UH
L002	1-469-668-11	s	INDUCTOR 33UH
L003	1-424-642-11	s	COIL, CHOKE 47UH
L101	1-412-915-11	s	INDUCTOR 0.010UH (2520)
L301	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L401	1-424-643-11	s	COIL, CHOKE 10UH
Q001	8-729-045-53	s	TRANSISTOR SI4431DY-T1
Q002	8-729-031-39	s	TRANSISTOR MTD20N03HDL
Q003	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q004	8-729-112-65	s	TRANSISTOR 2SA1462
Q005	8-729-012-35	s	TRANSISTOR 2SK711-BL
Q006	8-729-924-65	s	TRANSISTOR DTC123YU
(Q6: Board No. suffix 11)			
Q401	8-729-105-68	s	TRANSISTOR 2SC3356-K
Q402	8-729-028-81	s	TRANSISTOR DTA123JUA-T106
Q403	8-729-117-32	s	TRANSISTOR 2SC4177
R004	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R005	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R006	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R007	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R008	1-218-660-91	s	RESISTOR,CHIP 47 1/16W (1608)
R009	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R010	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R011	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R012	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R013	1-218-703-11	s	RESISTOR,CHIP 3.0K 1/16(1608)
R014	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R015	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R016	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R017	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R018	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R019	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)

(CN-2034 BOARD ;HKPF-SP022)

Ref. No. or Q'ty	Part No.	SP	Description
R020	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R021	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R022	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R023	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R024	1-218-728-11	s	RESISTOR,CHIP 33K 1/16W
R025	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R026	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R027	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R028	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R029	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
(R29: Board No. suffix 11)			
R030	1-218-737-11	s	RESISTOR,CHIP 75K 1/16W
(R30: Board No. suffix 11)			
R101	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R102	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R103	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R104	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R105	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R202	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R203	1-218-644-11	s	RESISTOR,CHIP 10 1/16W
R204	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R205	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R206	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R207	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R309	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R310	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R317	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R318	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R325	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R329	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R333	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R401	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R402	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R403	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R404	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R405	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R406	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R407	1-216-857-11	s	RESISTOR,CHIP 1M 1/16W(1608)
R408	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R409	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R410	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R411	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R414	1-218-682-11	s	RESISTOR,CHIP 390 1/16W (1608)
R416	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R418	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R419	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R420	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R421	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R422	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R424	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R425	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R426	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R427	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R429	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R430	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R431	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R432	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R433	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
X201	1-781-718-11	s	OSCILLATOR, VOLTAGE CONTROL

CN-2035 BOARD ;HKPF-SP003

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8326-991-A	o	MOUNTED CIRCUIT BOARD, CN-2035
1pc	3-629-413-01	o	PANEL(VDA),CN
1pc	3-631-762-01	o	LABEL,FUSE
14pcs	7-621-770-87	s	SCREW +B2.6X5
C001	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C002	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C003	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C004	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C005	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C006	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C007	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C008	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C009	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C010	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C011	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C012	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C013	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C014	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C015	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C016	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C017	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C018	1-107-689-21	s	CAPACITOR,TANTALUM 1MF/35V
C019	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C101	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C102	1-162-923-11	s	CAPACITOR,CERAMIC 47PF/50V CH
C103	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C104	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C105	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C202	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C203	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C204	1-125-837-11	s	CAPACITOR,CHIP CERAMIC1MF/6.3V
C205	1-115-416-11	s	CAPACITOR,CERAMIC 1000PF/25V
C206	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C207	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C208	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C209	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C210	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C211	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C212	1-115-156-11	s	CAPACITOR,CERAMIC 1MF/10V(1608
C302	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C304	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C306	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C309	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C311	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C312	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C313	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C314	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C315	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C316	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C317	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C318	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C319	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C320	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C321	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C322	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C323	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C324	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C325	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C326	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V

(CN-2035 BOARD ;HKPF-SP003)

Ref. No. or Q'ty	Part No.	SP	Description
C329	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C330	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C331	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C333	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C334	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C335	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C337	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C338	1-104-851-11	s	CAPACITOR,TANTALUM 10MF/10V
C401	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C402	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C403	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C404	1-164-230-11	s	CAPACITOR,CERAMIC 220PF/50V
C405	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C406	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C407	1-162-908-11	s	CAPACITOR,CERAMIC 3PF/50V 1608
C408	1-162-965-11	s	CAPACITOR,CERAMIC 1500PF/50V B
C411	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C412	1-162-968-11	s	CAPACITOR,CERAMIC 4700PF/50V B
C413	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C414	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C415	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C416	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C417	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C418	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C419	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C420	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
CN101	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN301	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN302	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN303	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN304	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN305	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
CN306	1-793-324-11	o	CONNECTOR, COAXIAL (BNC TYPE)
D001	8-719-987-43	s	LED CL-150PG-CD
D002	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D003	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D402	8-719-988-61	s	DIODE 1SS355TE-17
D403	8-719-989-97	s	LED CL-150SD-CD
D404	8-719-989-97	s	LED CL-150SD-CD
F001	⚠ 1-533-999-11	s	FUSE CHIP 2A/125V (6125)
IC001	8-759-937-36	s	IC TL1451ACNS
IC002	8-759-678-06	s	IC CAT24WC02JI-TE13
IC101	8-759-638-49	s	IC GS1504-CTD
IC201	8-759-643-03	s	IC GS1515-CTM
IC301	8-759-422-39	s	IC MC100EL11DR2
IC303	8-759-638-48	s	IC GS1508-CTA
IC304	8-759-638-48	s	IC GS1508-CTA
IC305	8-759-638-48	s	IC GS1508-CTA
IC306	8-759-638-48	s	IC GS1508-CTA
IC307	8-759-638-48	s	IC GS1508-CTA
IC308	8-759-638-48	s	IC GS1508-CTA
IC401	8-759-569-56	s	IC MC100EL57DR2
IC402	8-759-684-99	s	IC GS9035BCTJ(S25)
L001	1-414-617-11	s	INDUCTOR (POWER) 10UH
L002	1-469-668-11	s	INDUCTOR 33UH
L003	1-424-642-11	s	COIL, CHOKE 47UH

(CN-2035 BOARD ;HKPF-SP003)

Ref. No. or Q'ty	Part No.	SP	Description
L101	1-412-915-11	s	INDUCTOR 0.010UH (2520)
L301	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L302	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L303	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L304	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L305	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L306	1-414-462-31	s	INDUCTOR, CHIP (K) 8.2NH
L401	1-424-643-11	s	COIL, CHOKE 10UH
Q001	8-729-045-53	s	TRANSISTOR SI4431DY-T1
Q002	8-729-031-39	s	TRANSISTOR MTD20N03HDL
Q003	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q004	8-729-112-65	s	TRANSISTOR 2SA1462
Q005	8-729-012-35	s	TRANSISTOR 2SK711-BL
Q006	8-729-924-65	s	TRANSISTOR DTC123YU
Q401	8-729-105-68	s	TRANSISTOR 2SC3356-K
Q402	8-729-028-81	s	TRANSISTOR DTA123JUA-T106
Q403	8-729-117-32	s	TRANSISTOR 2SC4177
R004	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R005	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R006	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R007	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R008	1-218-660-91	s	RESISTOR,CHIP 47 1/16W (1608)
R009	1-218-668-11	s	RESISTOR,CHIP 100 1/16W (1608)
R010	1-218-720-11	s	RESISTOR,CHIP 15K 1/16W(1608)
R011	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R012	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R013	1-218-703-11	s	RESISTOR,CHIP 3.0K 1/16(1608)
R014	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R015	1-218-664-11	s	RESISTOR,CHIP 68 1/16W (1608)
R016	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R017	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R018	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R019	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R020	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R021	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R022	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R023	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R024	1-218-728-11	s	RESISTOR,CHIP 33K 1/16W
R025	1-218-733-11	s	RESISTOR,CHIP 51K 1/16W (1608)
R026	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R027	1-218-680-11	s	RESISTOR,CHIP 330 1/16W(1608)
R028	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R029	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R101	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R102	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R103	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R104	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R105	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R202	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R203	1-218-644-11	s	RESISTOR,CHIP 10 1/16W
R204	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R205	1-218-667-11	s	RESISTOR,CHIP 91 1/16W (1608)
R206	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R207	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R301	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R302	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R311	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R312	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)

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Ref. No. or Q'ty	Part No.	SP	Description
R313	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R314	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R315	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R316	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R317	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R318	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R319	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R320	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R321	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R322	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R323	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R324	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R325	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R326	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R327	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R328	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R329	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R330	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R331	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R332	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R333	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R334	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R335	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R336	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R339	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R340	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R341	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R343	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R345	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R346	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R347	1-218-648-11	s	RESISTOR CHIP 15 1/16W(1608)
R348	1-218-657-11	s	RESISTOR CHIP 36 1/16W (1608)
R353	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R354	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R355	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R356	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R357	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R358	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R361	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R362	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R365	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R366	1-218-665-11	s	RESISTOR,CHIP 75 1/16W (1608)
R369	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R370	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R401	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R402	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R403	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R404	1-218-663-11	s	RESISTOR,CHIP 62 1/16W (1608)
R405	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R406	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R407	1-216-857-11	s	RESISTOR,CHIP 1M 1/16W(1608)
R408	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R409	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R410	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R411	1-218-698-11	s	RESISTOR,CHIP 1.8K 1/16W(1608)
R414	1-218-682-11	s	RESISTOR,CHIP 390 1/16W (1608)
R416	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R418	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R419	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)

(CN-2035 BOARD ;HKPF-SP003)

Ref. No. or Q'ty	Part No.	SP	Description
R420	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R421	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R422	1-216-624-11	s	RESISTOR,CHIP 75 1/10W(2012)
R424	1-218-710-11	s	RESISTOR,CHIP 5.6K 1/16W(1608)
R425	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R426	1-216-620-11	s	RESISTOR CHIP 51 1/10W (2012)
R427	1-216-864-11	s	RESISTOR,CHIP 0 1/16W (1608)
R429	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R430	1-218-661-11	s	RESISTOR,CHIP 51 1/16W (1608)
R431	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R432	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R433	1-218-700-11	s	RESISTOR,CHIP 2.2K 1/16W(1608)
R434	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R435	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R436	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
R437	1-218-684-11	s	RESISTOR,CHIP 470 1/16W (1608)
X201	1-781-718-11	s	OSCILLATOR, VOLTAGE CONTROL

MA-105 BOARD ;HKPF-SP021/SP022/SP003

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*1: Board No. suffix 11
*2: Board No. suffix 12-

Ref. No. or Q'ty	Part No.	SP	Description
1pc	A-8326-981-A	o	MOUNTED CIRCUIT BOARD, MA-105A [for HKPF-SP021]
	A-8326-987-A	o	MOUNTED CIRCUIT BOARD, MA-105B [for HKPF-SP022]
	A-8326-992-A	o	MOUNTED CIRCUIT BOARD, MA-105C [for HKPF-SP003]
1pc	3-166-184-01	o	LEVER, PC BOARD
1pc	3-631-765-01	o	SHEET,021 [for HKPF-SP021]
	3-631-766-01	o	SHEET,022 [for HKPF-SP022]
	3-631-767-01	o	SHEET,003 [for HKPF-SP003]
5pcs	4-886-821-11	s	SCREW,M3X6 CASE (SILVER)
1pc	7-626-320-11	s	SPRING PIN,3X8
C102	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C103	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C104	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C105	1-163-037-11	s	CAPACITOR,CHIP CERAMIC 0.022MF
C108	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C110	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C112	1-107-689-21	s	CAPACITOR,TANTALUM 1MF/35V
C113	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C114	1-107-686-11	s	CAPACITOR,TANTALUM 4.7MF/16V
C116	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C120	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C122	1-135-344-11	s	CAPACITOR,SOLID ELECT 270MF
C124	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C126	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C128	1-107-826-11	s	CAPACITOR,CHIP CERAMIC 0.1MF
C129	1-164-004-11	s	CAPACITOR,CERAMIC 0.1MF/25V
C130	1-162-959-11	s	CAPACITOR,CERAMIC 330PF/50V SL
C131	1-164-227-11	s	CAPACITOR,CERAMIC 0.022MF/25V
C201	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C202	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C203	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C204	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C205	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C206	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C207	1-163-227-11	s	CAPACITOR CERAMIC 10PF/50V(CH)
C208	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C209	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C210	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C211	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C212	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C213	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C214	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C215	1-126-396-11	s	CAPACITOR,ELECT 47MF/16V(CHIP)
C216	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C217	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C218	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C219	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C220	1-126-394-11	s	CAPACITOR,ELECT 10MF/16V(CHIP)
C221	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C222	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C224	1-126-187-11	s	CAPACITOR,ELECT 0.1MF/50V(CHIP
C225	1-126-187-11	s	CAPACITOR,ELECT 0.1MF/50V(CHIP
C226	1-126-187-11	s	CAPACITOR,ELECT 0.1MF/50V(CHIP
C227	1-126-187-11	s	CAPACITOR,ELECT 0.1MF/50V(CHIP
C228	1-115-339-11	s	CAPACITOR,CERAMIC 0.1MF/50V

(MA-105 BOARD ;HKPF-SP021/SP022/SP003)

Ref. No. or Q'ty	Part No.	SP	Description
C229	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C230	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C231	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C232	1-163-005-11	s	CAPACITOR CHIP CERAMIC 470PF
C233	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C234	1-163-038-00	s	CAPACITOR, CERAMIC 0.1MF/25V
C236	1-117-370-11	s	CAPASITER CERAMIC 10MF (3216)
CN201	1-560-365-00	o	POST HEADER,CONNECTOR (3P)
D101	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D103	8-719-938-75	s	DIODE SB05-05CP (RECTI)
D201	8-719-421-11	s	LED LN15BP
D202	8-719-400-35	s	LED LN35BP
D203	8-719-400-35	s	LED LN35BP
D204	8-719-400-35	s	LED LN35BP
D206	8-719-820-41	s	DIODE 1SS302
F101	⚠ 1-533-999-11	s	FUSE CHIP 2A/125V (6125)
FB201	1-469-094-11	s	FERRITE, EMI (SMD)
IC101	8-759-937-36	s	IC TL1451ACNS
IC201	8-759-458-38	s	IC KL5C80A20CFP
IC202	8-759-973-71	s	IC TL7705CPS-B
IC203	8-759-826-37	o	IC 29EE512-MA105-V1.00
IC204	8-759-081-48	s	IC TC74VHC08F
IC205	8-759-272-27	s	IC 74VHC04SJ
IC206	8-759-521-15	s	IC MAX232CWE
IC208	8-759-497-04	s	IC LC361000AMLL-70-TLA
IC209	8-752-381-84	s	IC CXD1095BQ
IC210	8-759-678-06	s	IC CAT24WC02JI-TE13
IC211	8-759-939-25	s	IC SN75176BP
IC212	8-759-185-75	s	IC TC74VHC123AF (EL)
IS203	1-540-151-21	s	SOCKET, IC
L101	1-424-642-11	s	COIL, CHOKE 47UH
L103	1-469-668-11	s	INDUCTOR 33UH
L104	1-414-617-11	s	INDUCTOR (POWER) 10UH
Q101	8-729-012-35	s	TRANSISTOR 2SK711-BL
Q102	8-729-120-28	s	TRANSISTOR 2SC1623-L5L6
Q103	8-729-112-65	s	TRANSISTOR 2SA1462
Q107	8-729-045-53	s	TRANSISTOR SI4431DY-T1
Q108	8-729-031-39	s	TRANSISTOR MTD20N03HDL
Q201	8-729-027-52	s	TRANSISTOR DTC124EAK-T146
Q202	8-729-027-52	s	TRANSISTOR DTC124EAK-T146
Q203	8-729-928-36	s	TRANSISTOR DTA114EE
Q204	8-729-928-36	s	TRANSISTOR DTA114EE
Q205	8-729-928-36	s	TRANSISTOR DTA114EE
Q206	8-729-928-36	s	TRANSISTOR DTA114EE
Q207	8-729-928-36	s	TRANSISTOR DTA114EE
R101	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R102	1-218-676-11	s	RESISTOR,CHIP 220 1/16W(1608)
R103	1-218-724-11	s	RESISTOR,CHIP 22K 1/16W(1608)
R104	1-218-748-11	s	RESISTOR,CHIP 220K 1/16W(1608)
R105	1-218-683-11	s	RESISTOR CHIP 430 1/16W (1608)
R106	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R107	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K
R108	1-218-708-11	s	RESISTOR,CHIP 4.7K 1/16W(1608)
R112	1-218-730-11	s	RESISTOR METAL FILM CHIP 39K

(MA-105 BOARD ;HKPF-SP021/SP022/SP003)

Ref. No. or Q'ty	Part No.	SP	Description
R113	1-218-728-11	s	RESISTOR,CHIP 33K 1/16W
R115	1-216-021-00	s	RESISTOR,CHIP 68 1/10W(2012)
R118	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R121	1-216-017-91	s	RESISTOR, CHIP 47 1/10W(2012)
R122	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R125	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R126	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R129	1-218-716-11	s	RESISTOR,CHIP 10K 1/16W(1608)
R130	1-218-703-11	s	RESISTOR,CHIP 3.0K 1/16(1608)
R133	1-218-692-11	s	RESISTOR,CHIP 1.0K 1/16W(1608)
R137	1-216-077-00	s	RESISTOR,CHIP 15K 1/10W(2012)
R138	1-218-763-11	s	RESISTOR CHIP 300K 1/10W (2012
R140 *1	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R142	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R201	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R202	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R203	1-216-073-00	s	RESISTOR,CHIP 10K 1/10W(2012)
R204	1-216-025-00	s	RESISTOR,CHIP 100 1/10W(2012)
R205	1-216-121-00	s	RESISTOR CHIP 1M 1/10W(2012)
R207	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R208	1-216-691-11	s	RESISTOR,CHIP 47K 1/10W(2012)
R211	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R212	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R213	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R214	1-216-639-11	s	RESISTOR,CHIP 330 1/10W (2012)
R215	1-216-658-11	s	RESISTOR,CHIP 2.0K 1/10W(2012)
R216	1-216-658-11	s	RESISTOR,CHIP 2.0K 1/10W(2012)
R217	1-216-683-11	s	RESISTOR,CHIP 22K 1/10W (2012)
R218	1-218-756-11	s	RESISTOR,CHIP 150K 1/10W(2012)
R221	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R222	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R223	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R225	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R228	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R229	1-216-295-00	s	CONDUCTOR, CHIP (2012)
R232	1-216-691-11	s	RESISTOR,CHIP 47K 1/10W(2012)
R233	1-216-691-11	s	RESISTOR,CHIP 47K 1/10W(2012)
R234	1-216-691-11	s	RESISTOR,CHIP 47K 1/10W(2012)
R235	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R236	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R237	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R238	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
R239	1-216-635-11	s	RESISTOR,CHIP 220 1/10W (2012)
RB201	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB202	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB203	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB204	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB205	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB206	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB207	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB208	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB209	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB210	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB211	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB212	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
RB213 *2	1-239-389-11	s	RESISTOR,NETWORK 47K (1608)
S201	1-762-400-11	s	SWITCH
S202	1-571-275-31	s	SWITCH,SLIDE (1-1-2)

(MA-105 BOARD ;HKPF-SP021/SP022/SP003)

Ref. No. or Q'ty	Part No.	SP	Description
X201	1-579-996-21	s	VIBRATOR, CERAMIC

Section 3
Semiconductor Pin Assignments

The following describes the semiconductor types used in this unit.
For semiconductors marked with page numbers in the index, refer to the corresponding pages in this section. However, in some cases incompatible types are also listed, therefore, when a part is to be replaced, also refer to the Spare Parts section.
In addition, for semiconductors with ID Nos., refer to the separate CD-ROM titled “Semiconductor Pin Assignments” (Sony Part No. 9-968-546-xx) that allows searching for parts by semiconductor type or ID No.
The semiconductors in the manual or on the CD-ROM are listed by equivalent types. Thus the external view or the index mark indication may differ from the actual type.
Pin assignments and block diagrams are based on the IC manufacturer’s data book.

本機に使用されている半導体型名の一覧を下記に示します。
索引中，ページが記載されている半導体は，本章の該当ページを参照してください。ただし，互換性のない型名を併記している場合がありますので，部品を交換するときは，Spare Partsの章を参照してください。
また，ID番号が記載されている半導体は，別途発行の “Semiconductor Pin Assignments” CD−ROM版 (ソニー部品番号：9−968−546−xx)を参照してください。
半導体型名またはID番号から検索ができます。
マニュアルまたはCD−ROMに掲載されている半導体は，それぞれの機能を等価的に表わしたものです。
外観やインデックスマークの表示方法が実物と異なる場合があります。
ピン配置およびブロック図はICメーカーのデータブックに従いました。

DIODE — **Page or ID No.**

1SS302 ..... DC001-01
1SS302-TE85L DC001-01
1SS355TE-17 ..... DC008-02

SB05-05CP DC001-16
SB05-05CP-TB DC001-16

LED — **Page or ID No.**

CL-150PG-CD LC001-01
CL-150PG-CD-T LC001-01
CL-150SD-CD LC001-01
CL-150SD-CD-T LC001-01

LN15BP LR053-02
LN35BP LR053-01

TRANSISTOR — **Page or ID No.**

2SA1462 ..... TC001-01
2SA1462-T1Y33Y34 ..... TC001-01
2SC1623-L5L6 ..... TC001-02
2SC1623-T1-L5L6 ..... TC001-02
2SC3356-K TC001-02
2SC3356-T1K TC001-02
2SC4177-L6 ..... TC001-02
2SC4177-T1L5L6 ..... TC001-02
2SK711-BL TC001-05
2SK711-BL/V-TE85L TC001-05

DTA114EE TC001-04
DTA114EE-TL TC001-04
DTA123JUA-T106 ..... TC001-04
DTC123YUA-T106 ..... TC001-03
DTC124EKA-T146 ..... TC001-03

TRANSISTOR — **Page or ID No.**

MTD20N03HDL TC010-01
MTD20N03HDL-T4 ..... TC010-01

SI4431DY-T1 ..... TC012-04

IC — **Page or ID No.**

CAT24WC02JI-TE13 3-2
CXD1095BQ CXD1095Q

GS1504-CTD GS1504-CTD
GS1508-CTA GS1508-CTA
GS1515-CTM GS1515-CTM
GS9035BCTJ(S25) GS9035-CTJ

KL5C80A20CFP KL5C80A20CFP

LC361000AMLL-70-TLA LC361000AMLL-70-TLA

MAX232CWE MAX232CPE
MAX232CWE-TE-2 ..... MAX232CPE
MC100EL11DR2 ..... MC10EL11DR2
MC100EL57DR2 ..... MC100EL57DR2

SN75176BP SN75176BP
SN75176BPS-E05 ..... SN75176BP
SST29EE512-90-4C-NH SST29EE512-120-4C-NH

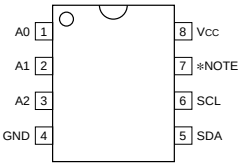
TC74VHC04F TC74HC04P
TC74VHC04F(EL) TC74HC04P
TC74VHC08F(EL) TC74HC08P
TC74VHC123AF(EL) TC74HC123P
TL1451ACNS TL1451CNS
TL1451ACNSR TL1451CNS
TL7705CPS-B TL7705CP

IC

CAT24WC02JI-TE13 (CATALYST)

SERIAL EEPROM

—TOP VIEW—



INPUTS

A0 - A2 : ADDRESS
SCL : SERIAL CLOCK
$\overline{WC}$: WRITE CONTROL
WP : WRITE PROTECT

INPUT/OUTPUT

SDA : SERIAL DATA

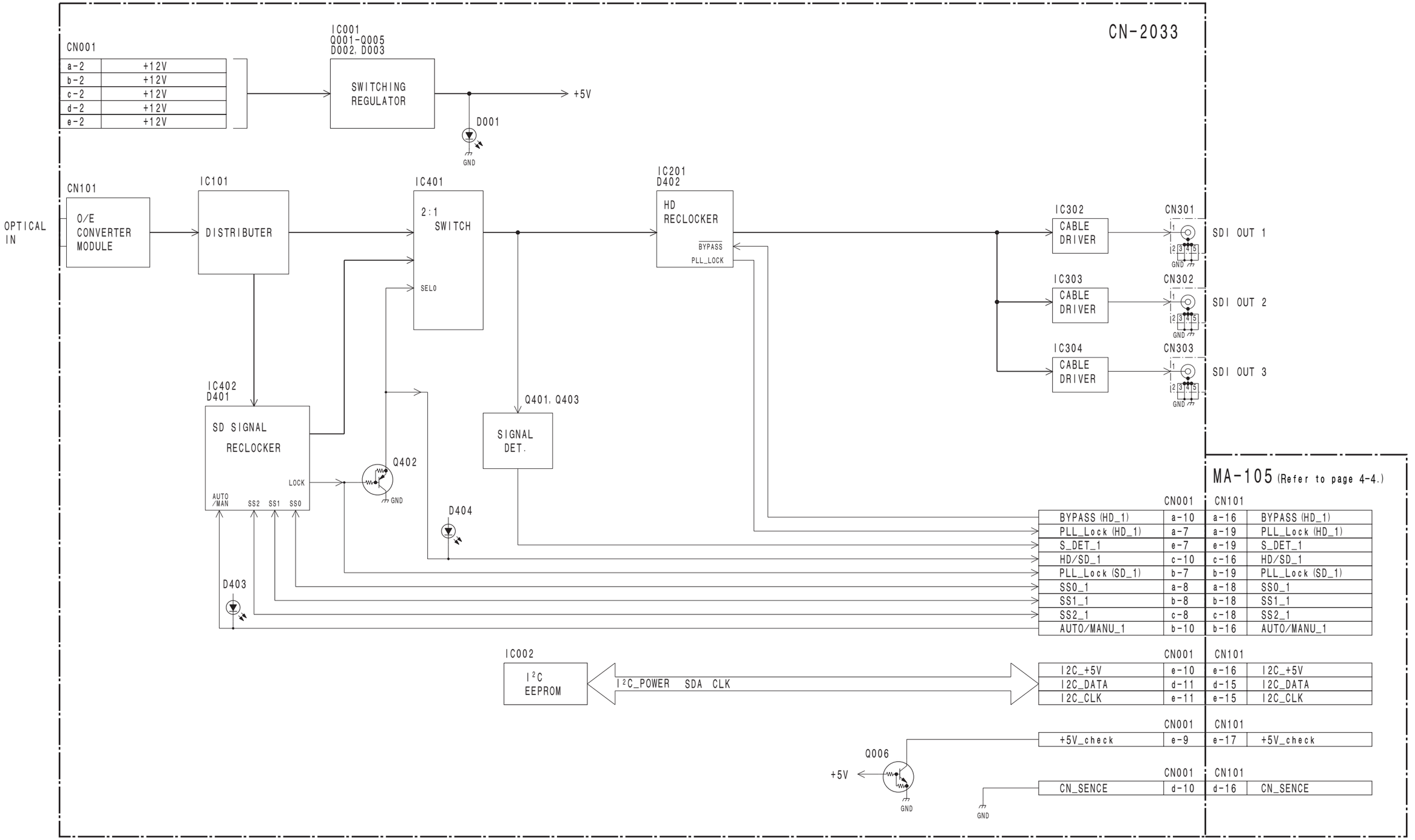
OTHERS

NC : NO CONNECTION
TEST : TEST PIN

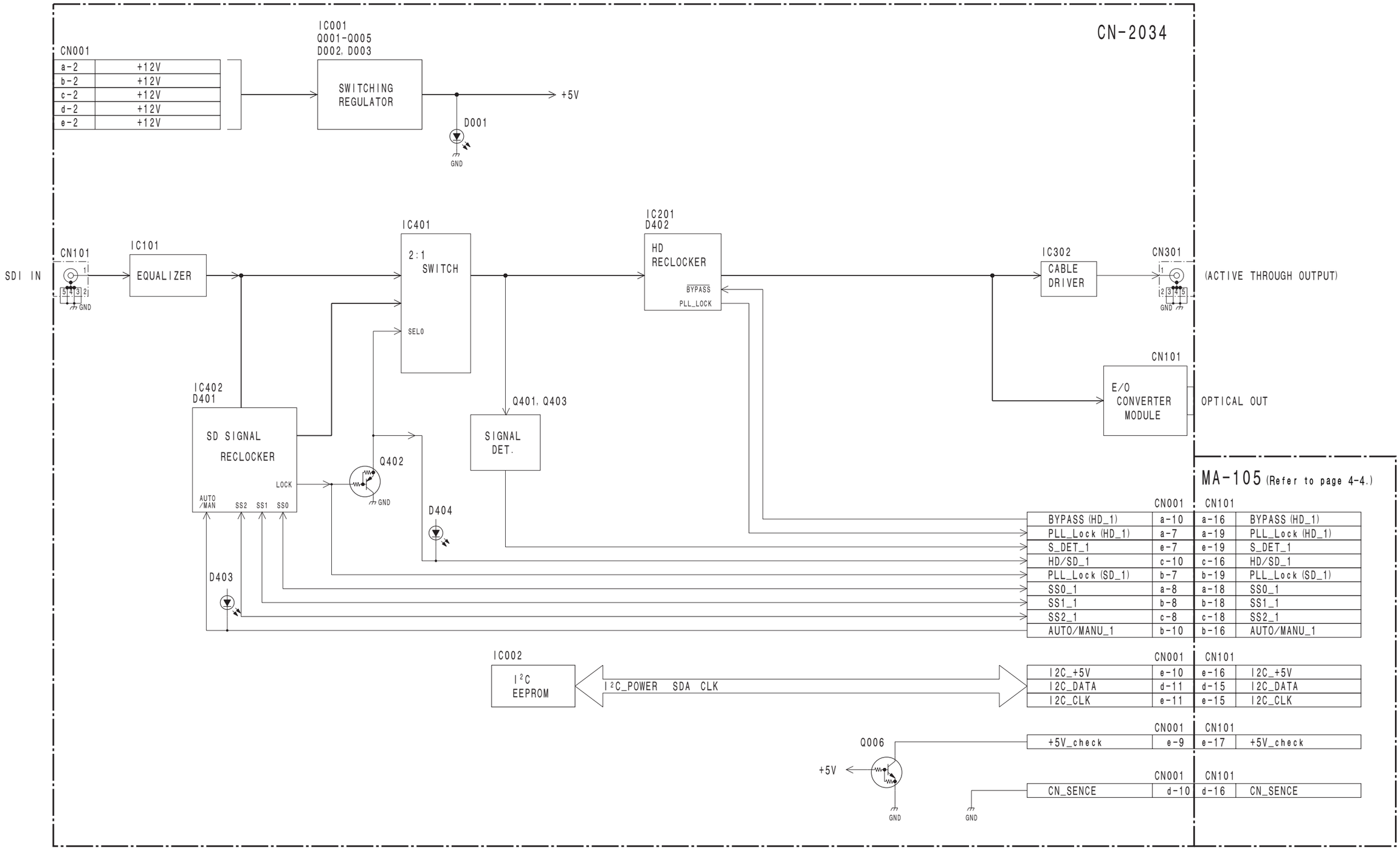
∗NOTE :

TYPE	MEMORY	PIN 7
NM24C16	16 K	NC
X24C02 S-24C02	2 K	$\overline{WC}$
CAT24WC02	2 K	WP
X24C04	4 K	TEST
X24C08	8 K	TEST

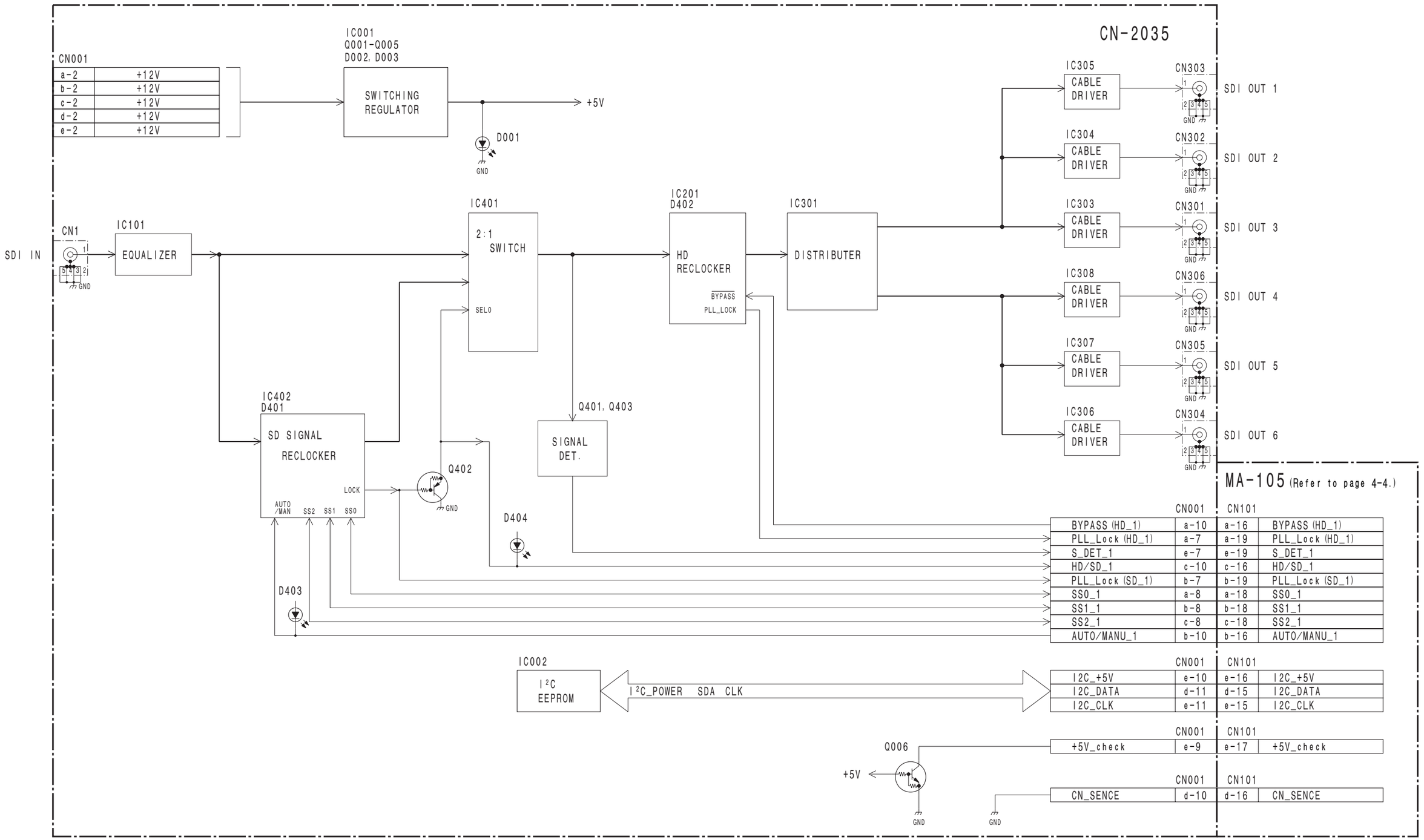
Section 4
Block Diagrams



CN-2033
HKPF-SP021



CN-2034
HKPF-SP022



CN-2035
HKPF-SP003

MA-105

CN101

a-24	+12V
b-24	+12V
c-24	+12V
d-24	+12V
e-24	+12V

IC101
Q101-Q103, Q107, Q108

SWITCHING REGULATOR → +5V

IC209

I/O EXPANDER

Q203, Q204 DRIVER → D201 → STATUS
Q205 DRIVER → D202 → INPUT DET
Q206 DRIVER → D203 → HD RECLOCK
Q207 DRIVER → D204 → SD RECLOCK

IC201

CPU

ADDRESS, DATA

IC203 FLASH MEMORY
IC208 RAM

OE, WE

CN201

1	GND
2	TX
3	RX

GND

IC206 RS232C DRIVER

TX0
RX0

RESET S201 GND → IC202 RESET

I/O Port

I²C CLK, I²C DATA

IC210 I²C EEPROM

+5V

SLOT ID

START UP S202 GND

TX1
RX1

IC211 RS485 DRIVER

ERROR, WARNING

CN101

SLOT_ID4	e-10
SLOT_ID3	d-10
SLOT_ID2	c-10
SLOT_ID1	b-10
SLOT_ID0	a-10

CN101

PLL_Lock (HD_1)	a-19
PLL_Lock (SD_1)	b-19
CN_SENCE	d-16
+5V_check	e-17
S_DET_1	e-19

CN101

I2C_DATA	d-15
I2C_CLK	e-15
I2C_+5V	e-16

CN101

BYPASS (HD_1)	a-16
AUTO/MANU_1	b-16
HD/SD_1	c-16
SS0_1	a-18
SS1_1	b-18
SS2_1	c-18

CN101

ERROR	a-15
WARNING	b-15

CN101

SERIAL_A+	d-9
SERIAL_A-	e-9

CN101

SLOT_ON	d-11
POWER_CK	c-15

GND

CN-2033 (Refer to page 4-1.)
CN-2034 (Refer to page 4-2.)
CN-2035 (Refer to page 4-3.)

CN001

a-7	PLL_Lock (HD_1)		
b-7	PLL_Lock (SD_1)		
d-10	CN_SENCE		
e-9	+5V_check		
e-7	S_DET_1		

CN001

d-11	I2C_DATA		
e-11	I2C_CLK		
e-10	I2C_+5V		

CN001

a-10	BYPASS (HD_1)		
b-10	AUTO/MANU_1		
c-10	HD/SD_1		
a-8	SS0_1		
b-8	SS1_1		
c-8	SS2_1		

MA-105
HKPF-SP021
HKPF-SP022
HKPF-SP003

Section 5
Schematic Diagrams

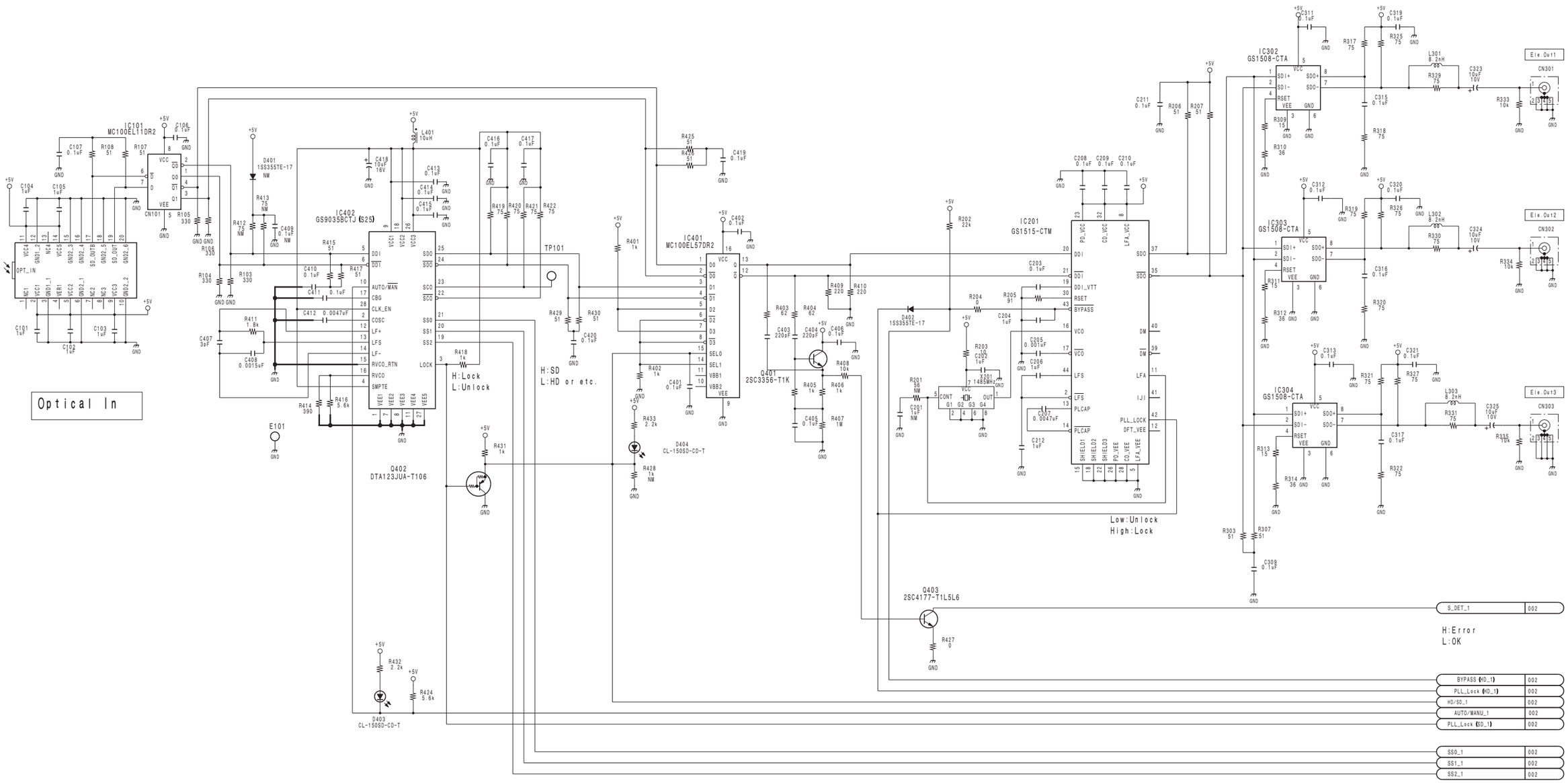
Index

Board Name	Function	Model	Page
CN-2033	Optical to Electrical Converter Board	HKPF-SP021	5-2
CN-2034	Electrical to Optical Converter Board	HKPF-SP022	5-4
CN-2035	Video Distribution AMP Board	HKPF-SP003	5-6
MA-105	Control Board	HKPF-SP021	5-9
		HKPF-SP022	
		HKPF-SP003	

5-1

CN-2033 (1/2) HKPF-SP021

HKPF-SP021 (SY) : S/N 10001 and Higher



CN-2033 (1/2)

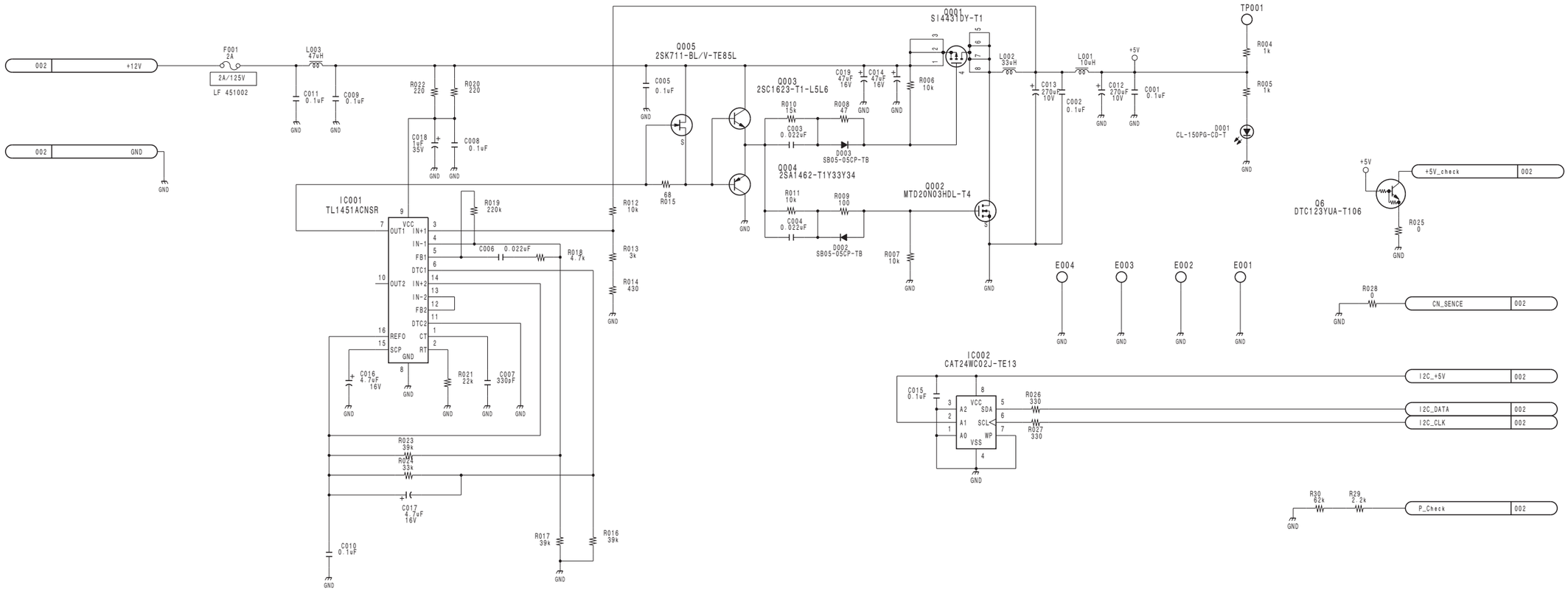
HKPF-SP021
BOARD NO. 1-679-669-11
LOT NO. 082-

HKPF-SP021/SP022/SP003

5-2

CN-2033 (2/2) HKPF-SP021

HKPF-SP021 (SY) : S/N 10001 and Higher



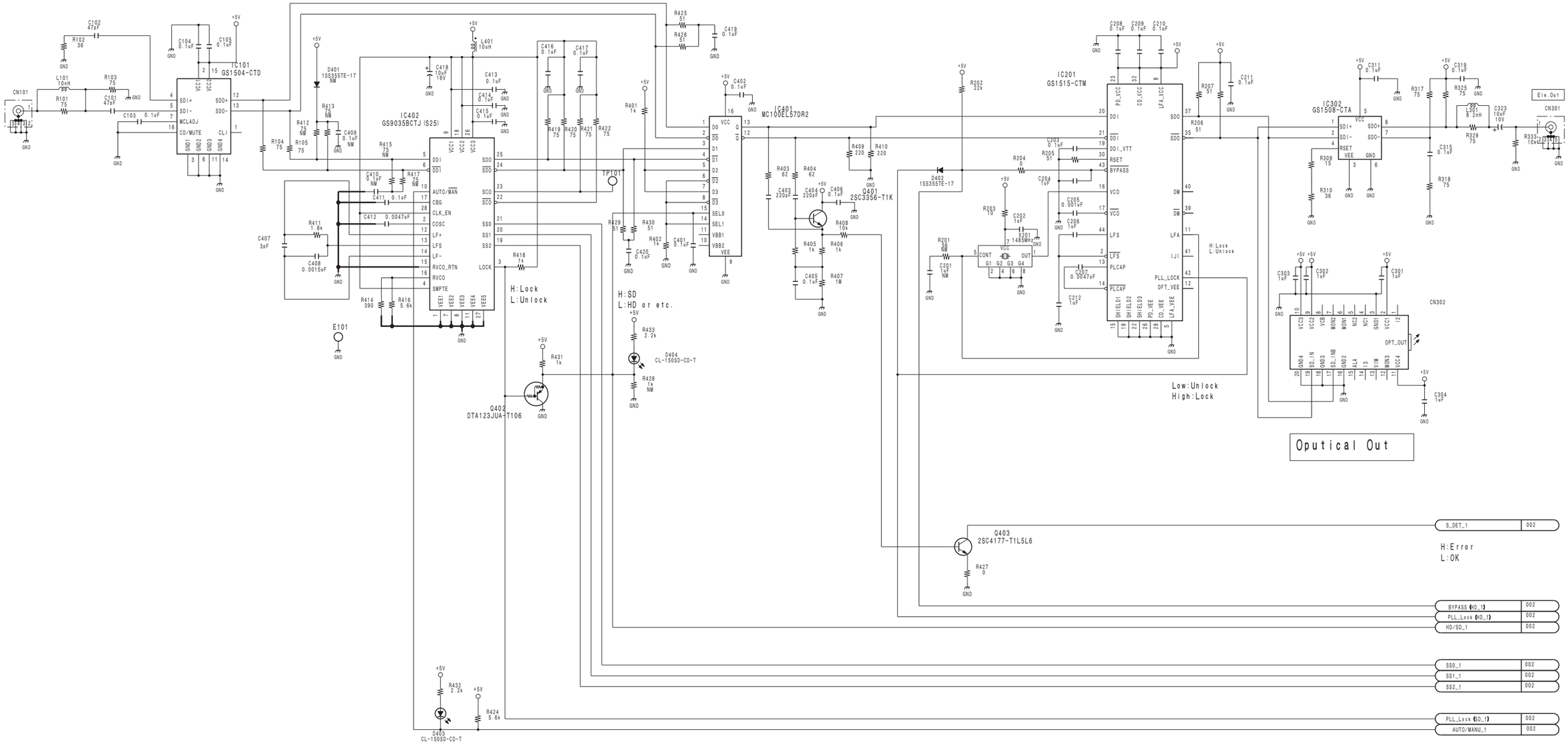
CN001

	a	b	c	d	e	f
1	GND	GND	GND	GND	GND	GND
2	+12V	+12V	+12V	+12V	+12V	
3						GND
4						
5						GND
6						
7	PLL_Lock (HD_1)	PLL_Lock (SD_1)			S_DET_1	GND
8	SS0_1	SS1_1	SS2_1			
9					+5V_check	GND
10	BYPASS (HD_1)	AUTO/MANU_1	HD/SD_1	CN_SENCE	I2C_+5V	
11			P_Check	I2C_DATA	I2C_CLK	GND

CN-2033 (2/2)
HKPF-SP021
BOARD NO. 1-679-669-11
LOT NO. 082-

CN-2034 (1/2) HKPF-SP022

HKPF-SP022 (SY) : S/N 10001 and Higher

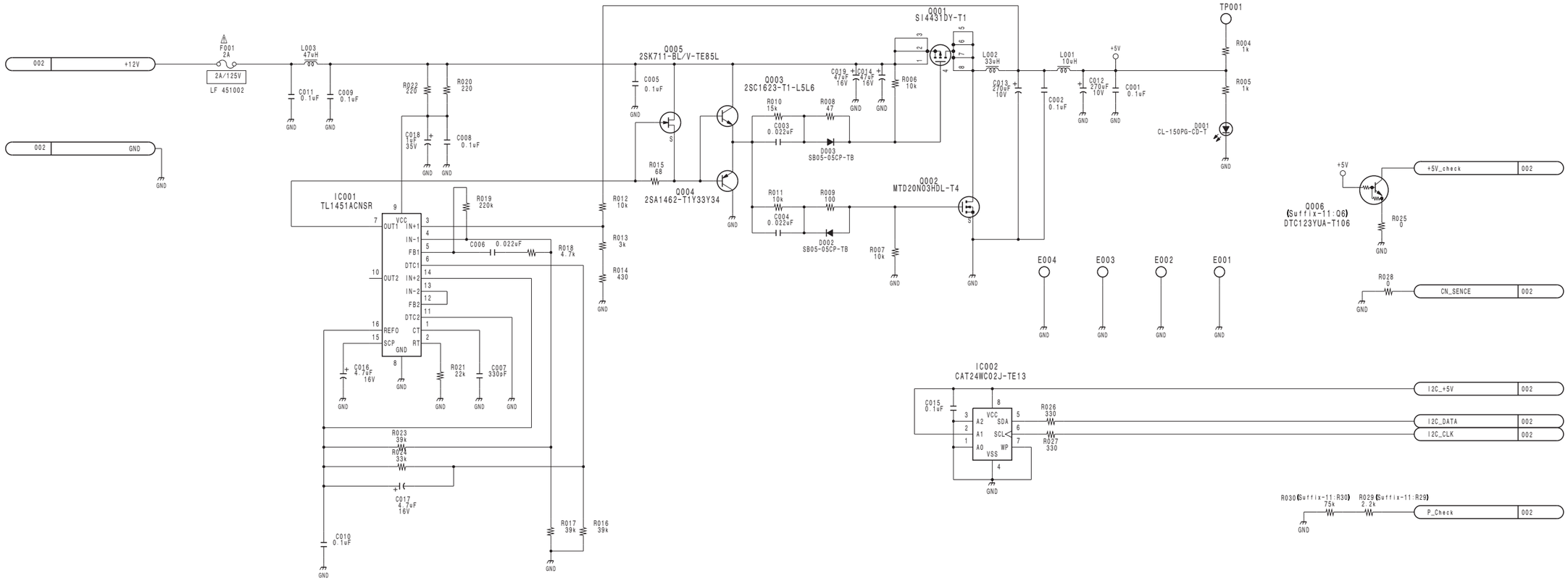


CN-2034 (1/2)

HKPF-SP022
BOARD NO. 1-679-670-11, 12
LOT NO. 082-

CN-2034 (2/2) HKPF-SP022

HKPF-SP022 (SY) : S/N 10001 and Higher



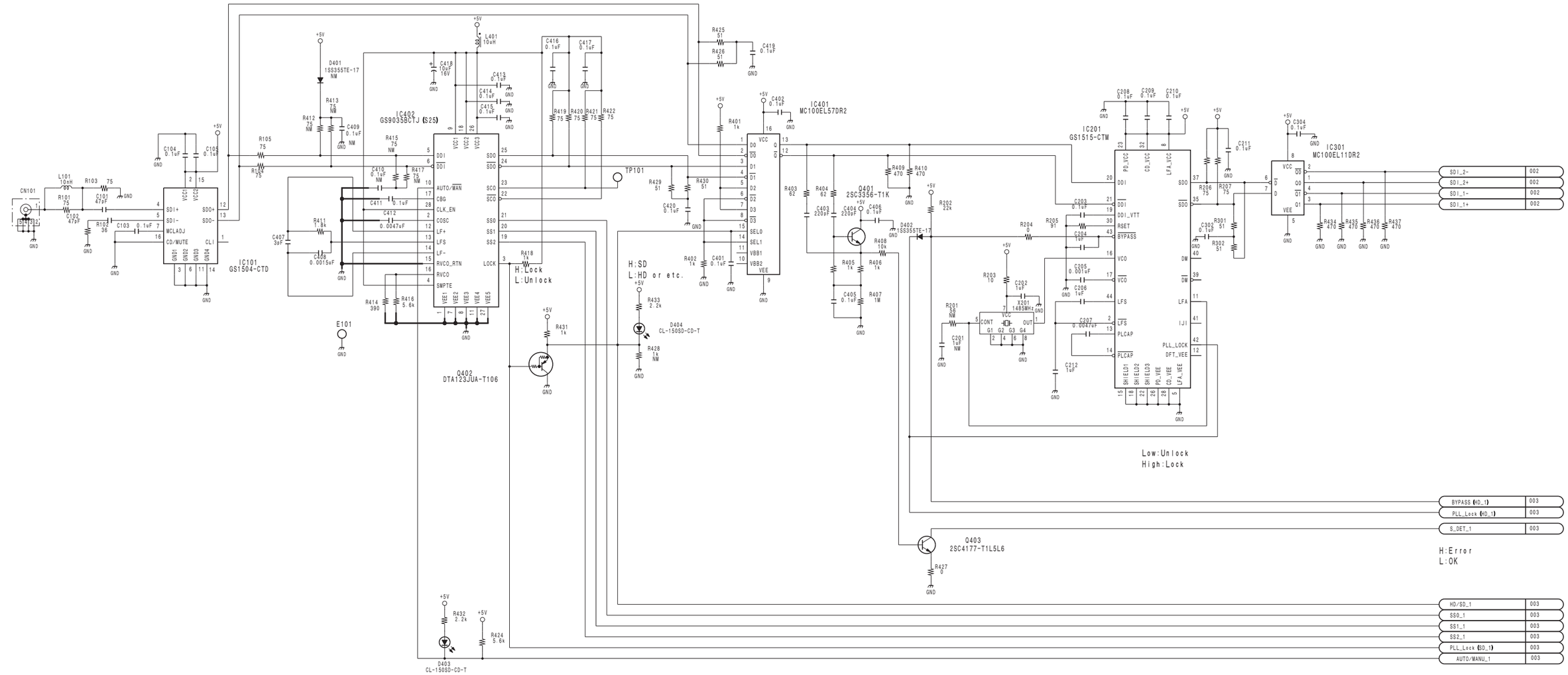
CN001

	a	b	c	d	e	f
1	GND	GND	GND	GND	GND	GND
2	+12V	+12V	+12V	+12V	+12V	
3						GND
4						
5						GND
6						
7	PLL_Lock (HD_1)	PLL_Lock (SD_1)			S_DET_1	GND
8	SS0_1	SS1_1	SS2_1			
9					+5V_check	GND
10	BYPASS (HD_1)	AUTO/MANU_1	HD/SD_1	CN_SENCE	I2C_+5V	
11			P_Check	I2C_DATA	I2C_CLK	GND

CN-2034 (2/2)

HKPF-SP022
BOARD NO. 1-679-670-11, 12
LOT NO. 082-

HKPF-SP003 (SY) : S/N 10001 and Higher

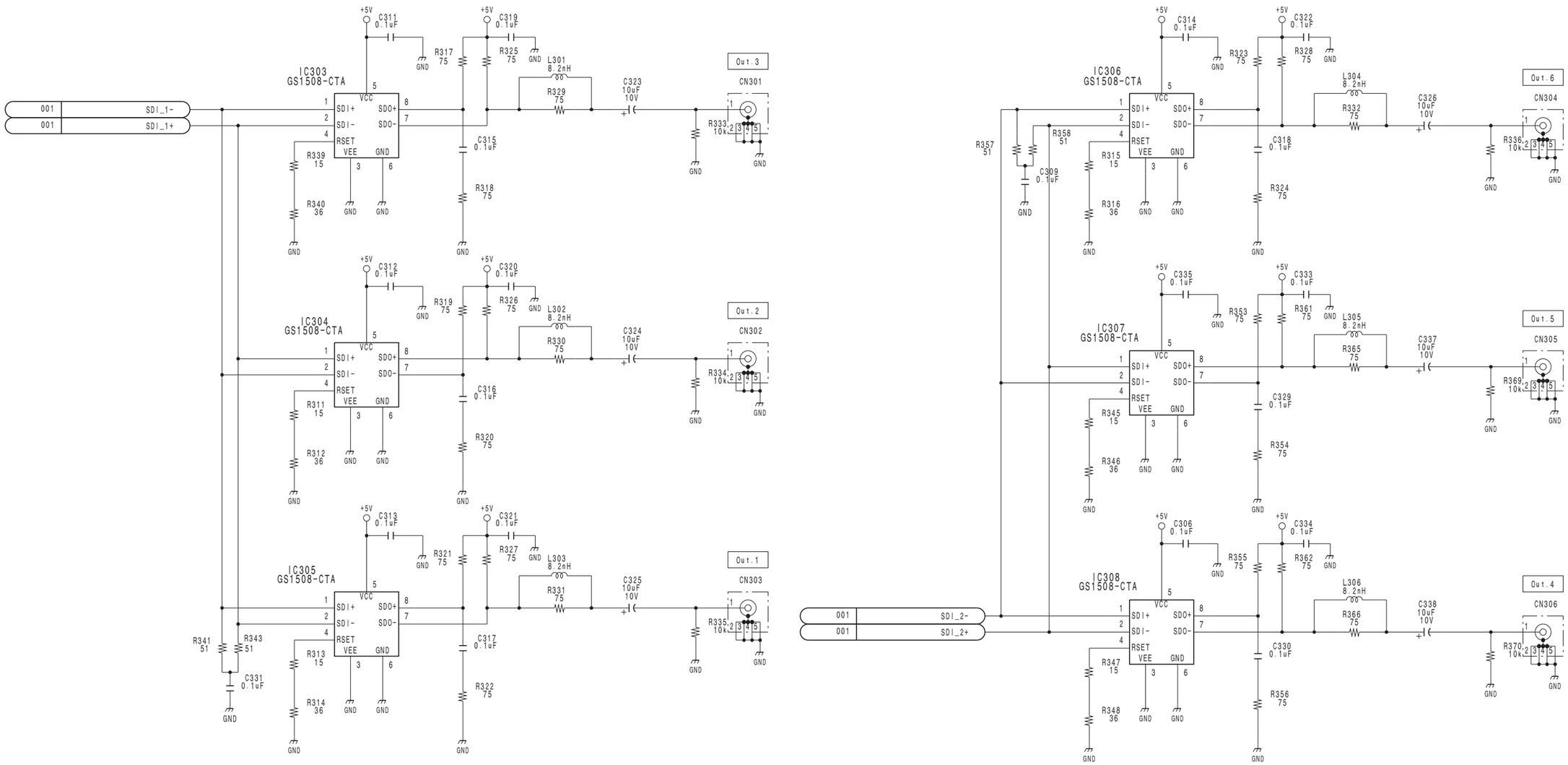


CN-2035 (1/3)

HKPF-SP003
BOARD NO. 1-679-671-11
LOT NO. 082-

CN-2035 (2/3) HKPF-SP003

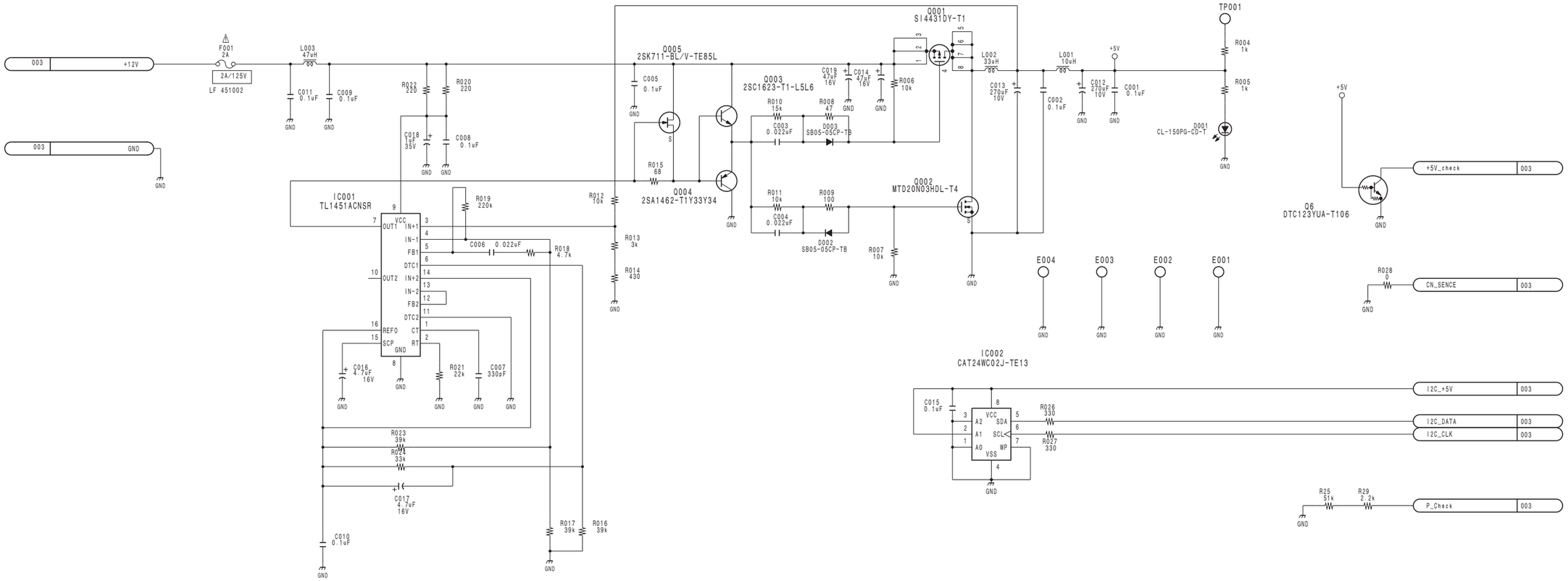
HKPF-SP003 (SY) : S/N 10001 and Higher



CN-2035 (2/3)

HKPF-SP003
BOARD NO. 1-679-671-11
LOT NO. 082-

HKPF-SP003 (SY) : S/N 10001 and Higher



CN001

	a	b	c	d	e	f
1	GND	GND	GND	GND	GND	GND
2	+12V	+12V	+12V	+12V	+12V	
3						GND
4						
5						GND
6						
7	PLL_Lock (HD_1)	PLL_Lock (SD_1)			S_DET_1	GND
8	SS0_1	SS1_1	SS2_1			
9					+5V_check	GND
10	BYPASS (HD_1)	AUTO/MANU_1	HD/SD_1	CN_SENCE	I2C_+5V	
11			P_Check	I2C_DATA	I2C_CLK	GND

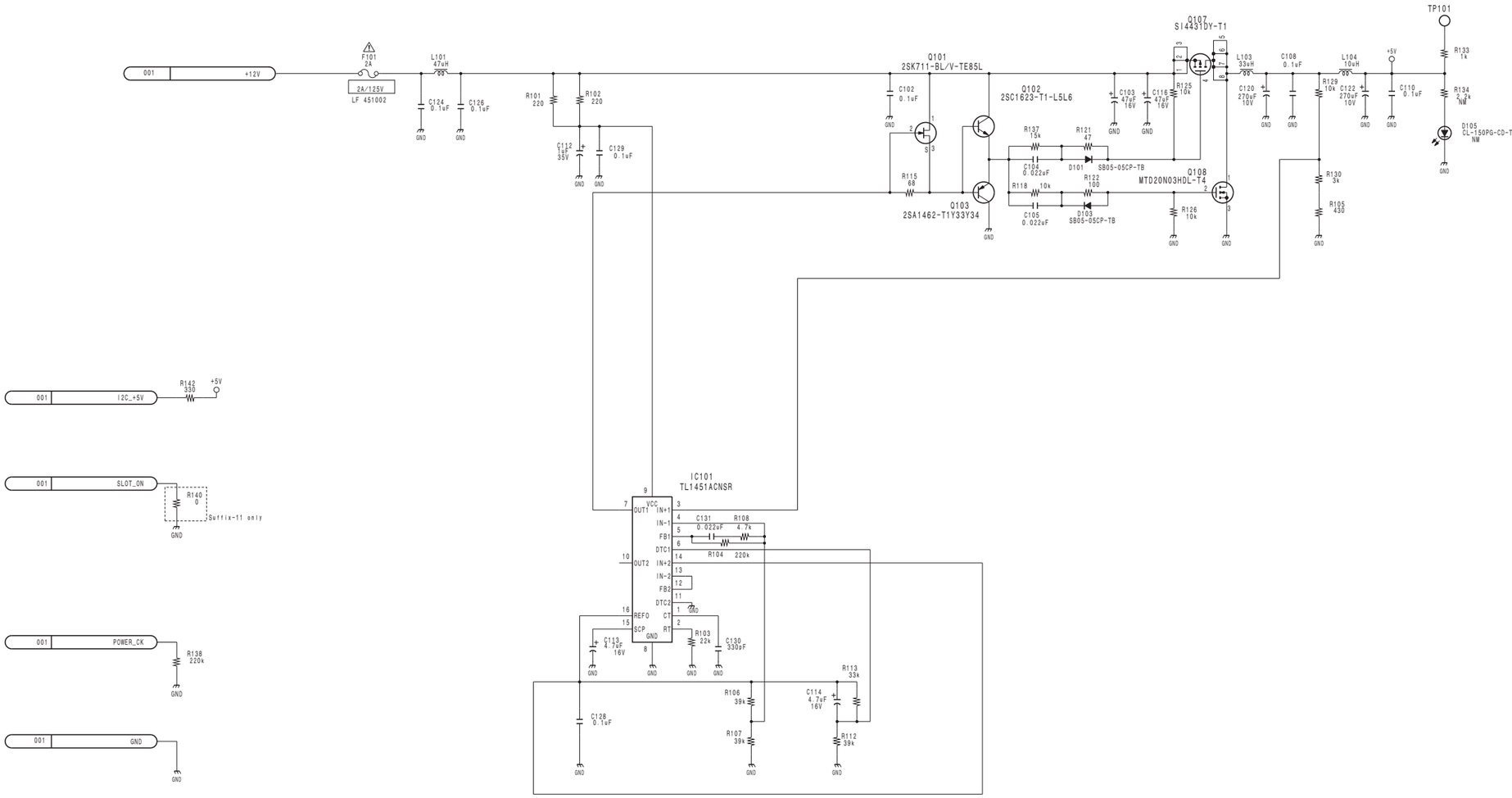
CN-2035 (3/3)

HKPF-SP003
BOARD NO. 1-679-671-11
LOT NO. 082-

HKPF-SP021/SP022/SP003

MA-105 (1/2) HKPF-SP021/SP022/SP003

HKPF-SP021 (SY) : S/N 10001 and Higher
HKPF-SP022 (SY) : S/N 10001 and Higher
HKPF-SP003 (SY) : S/N 10001 and Higher



CN101

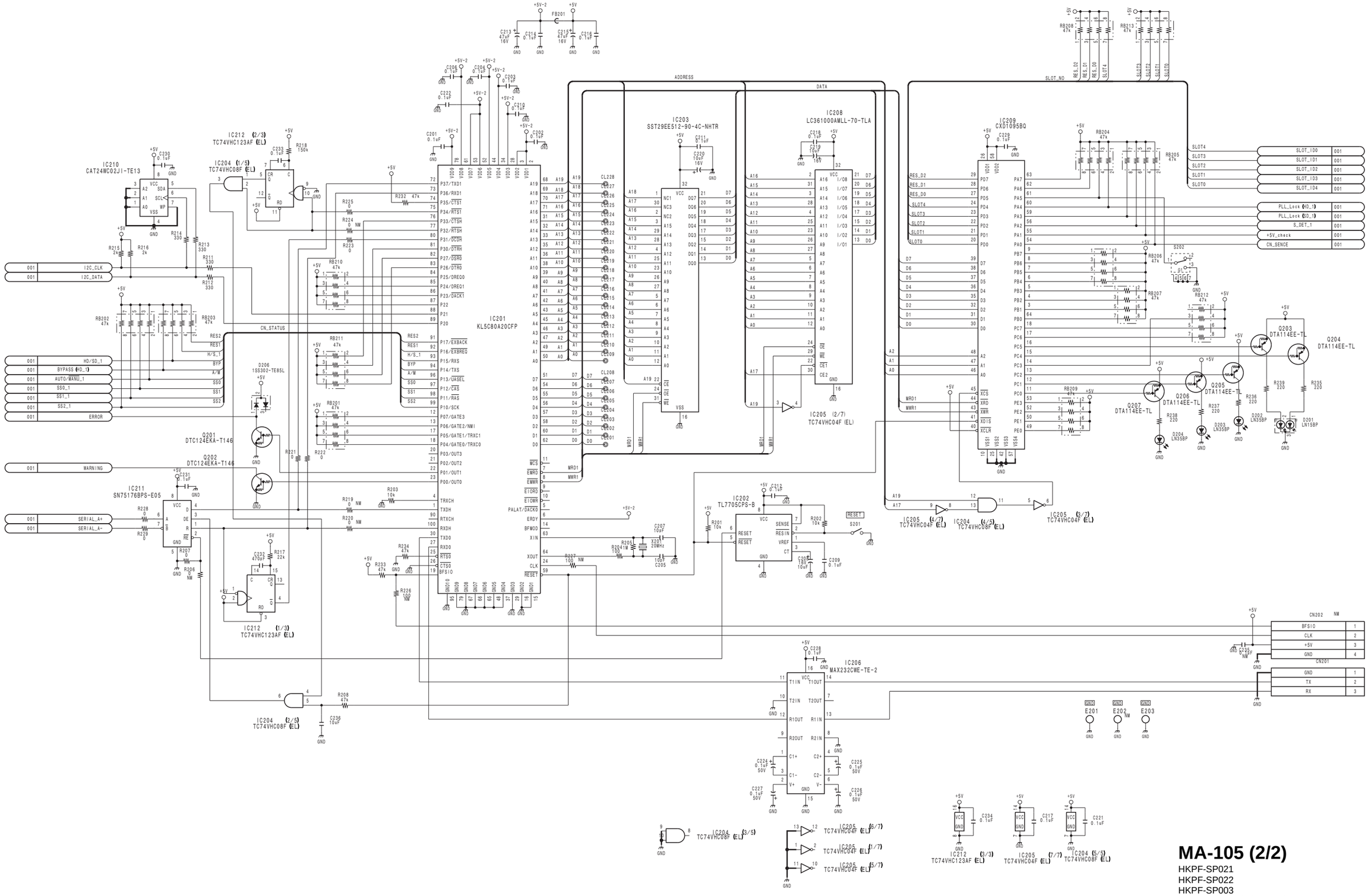
	a	b	c	d	e	FG
1	GND	GND	GND			GND
2						
3						GND
4						
5						GND
6						
7						GND
8						
9				SERIAL_A+	SERIAL_A-	GND
10	SLOT_ID0	SLOT_ID1	SLOT_ID2	SLOT_ID3	SLOT_ID4	
11				SLOT_ON		GND
12						
13						GND
14						
15	ERROR	WARNING	POWER_CK	I2C_DATA	I2C_CLK	GND
16	BYPASS (HD_1)	AUTO/MANU_1	HD/SD_1	CN_SENCE	I2C_+5V	
17					+5V_check	GND
18	SS0_1	SS1_1	SS2_1			
19	PLL_Lock (HD_1)	PLL_Lock (SD_1)			S_DET_1	GND
20						
21						GND
22						
23						GND
24	+12V	+12V	+12V	+12V	+12V	
25	GND	GND	GND	GND	GND	GND

MA-105 (1/2)

HKPF-SP021
HKPF-SP022
HKPF-SP003
BOARD NO. 1-679-672-11, 12
LOT NO. 082-

MA-105 (2/2) HKPF-SP021/SP022/SP003

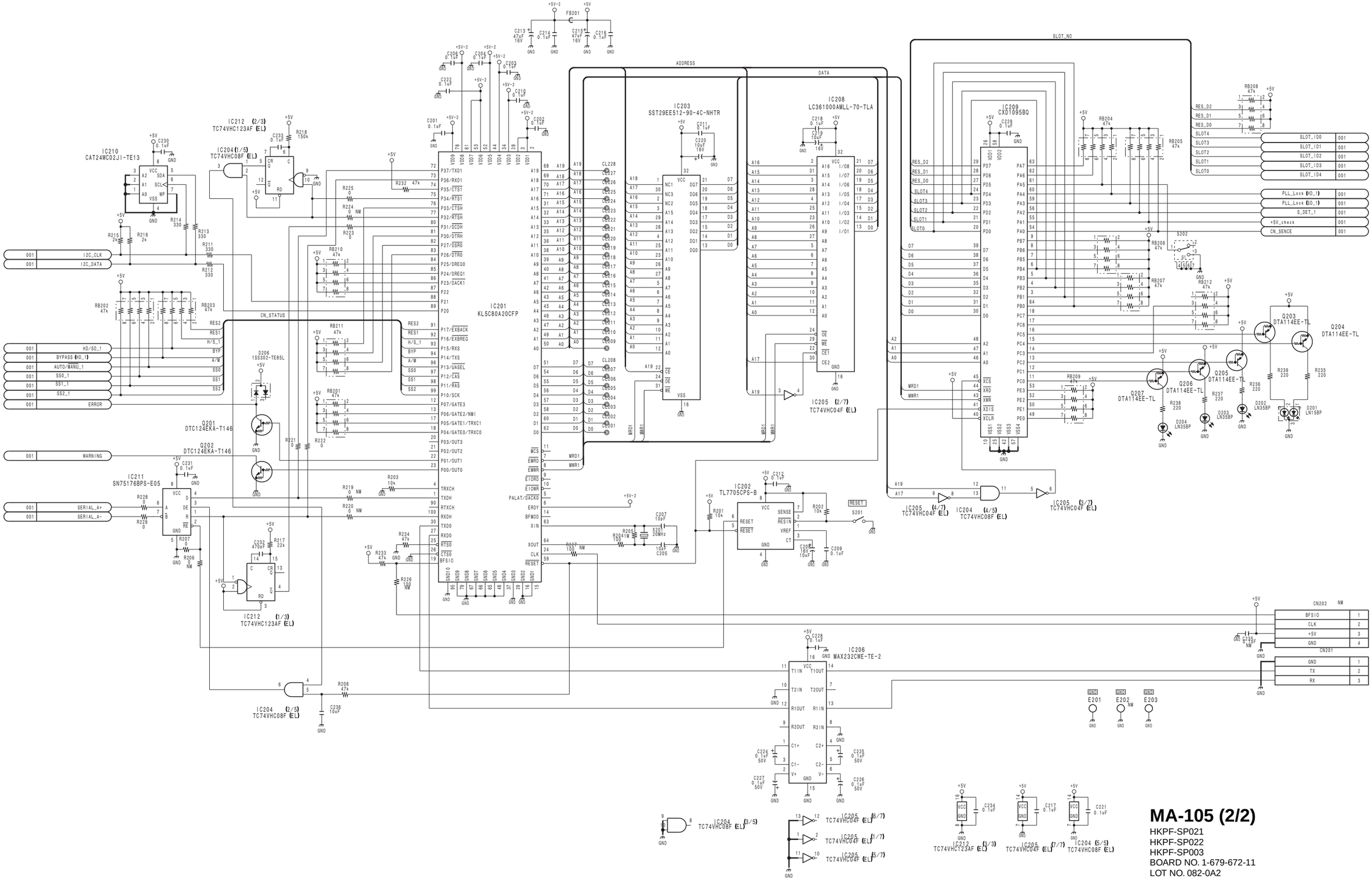
HKPF-SP021 (SY) : S/N 10041 and Higher
HKPF-SP022 (SY) : S/N 10041 and Higher
HKPF-SP003 (SY) : S/N 10081 and Higher



5-11 (b)

5-11 (b)

MA-105 (2/2)
HKPF-SP021
HKPF-SP022
HKPF-SP003
BOARD NO. 1-679-672-12
LOT NO. 0A3-



MA-105 (2/2)

HKPF-SP021
HKPF-SP022
HKPF-SP003
BOARD NO. 1-679-672-11
LOT NO. 082-0A2

Section 6
Board Layouts

Index

Board Name	Function	Model	Page
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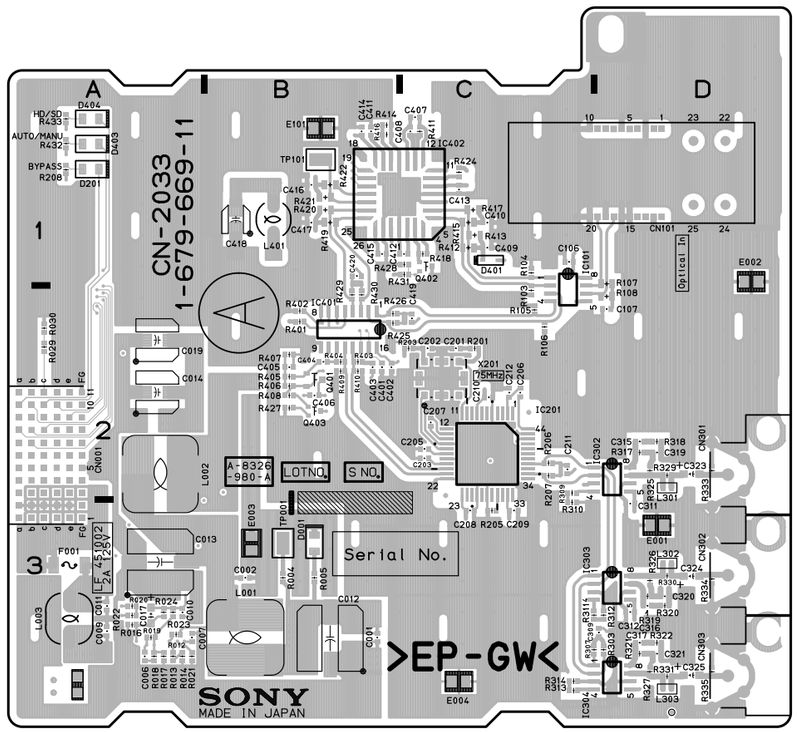
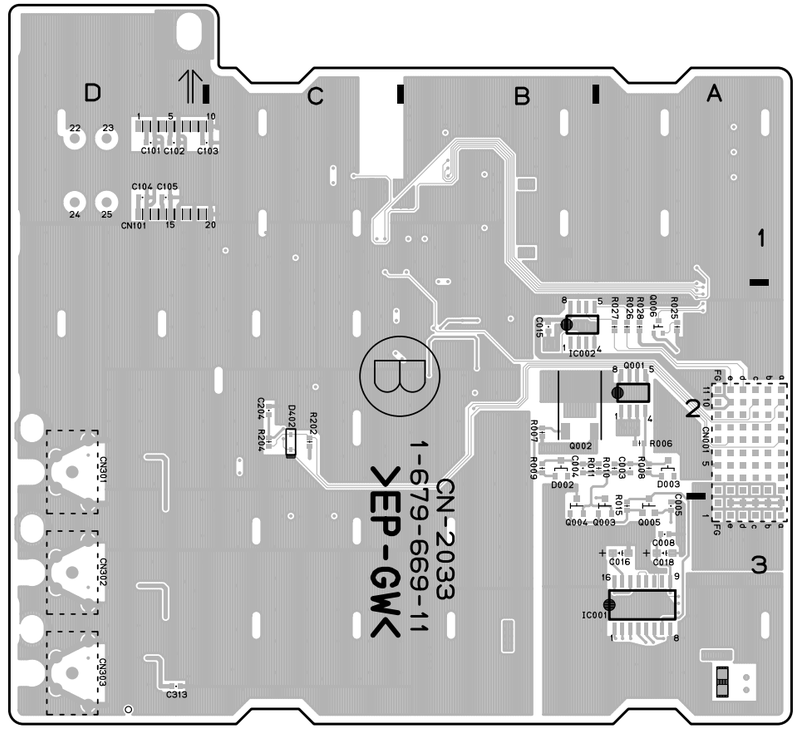
CN-2034	Electrical to Optical Converter Board	HKPF-SP022	6-3
CN-2035	Video Distribution AMP Board	HKPF-SP003	6-4
MA-105	Control Board	HKPF-SP021	6-5
		HKPF-SP022	
		HKPF-SP003	





HKPF-SP021 (SY) : S/N 10001 and Higher

CN-2033 -A SIDE-

SUFFIX: -11

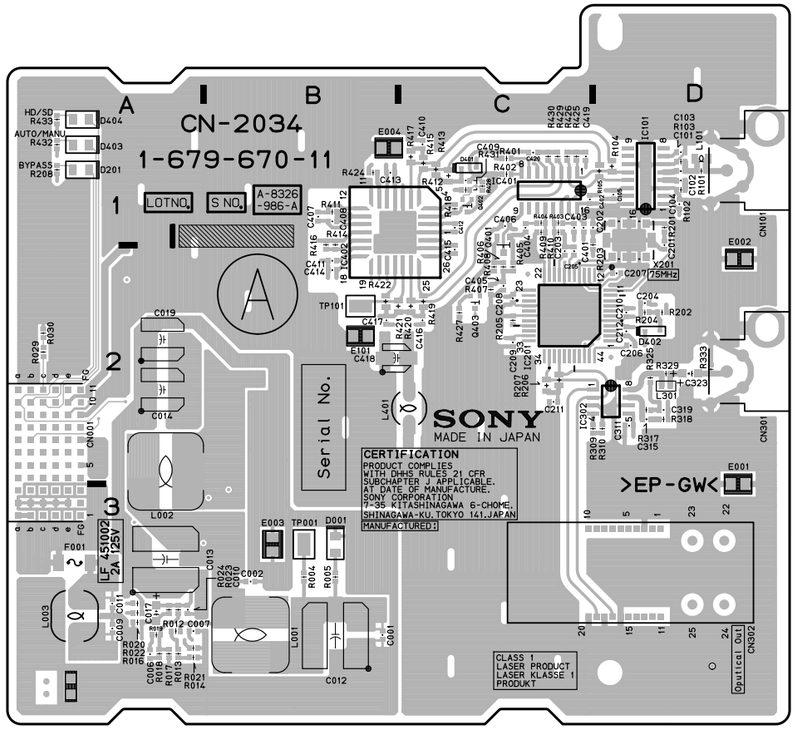
CN-2033 -B SIDE-

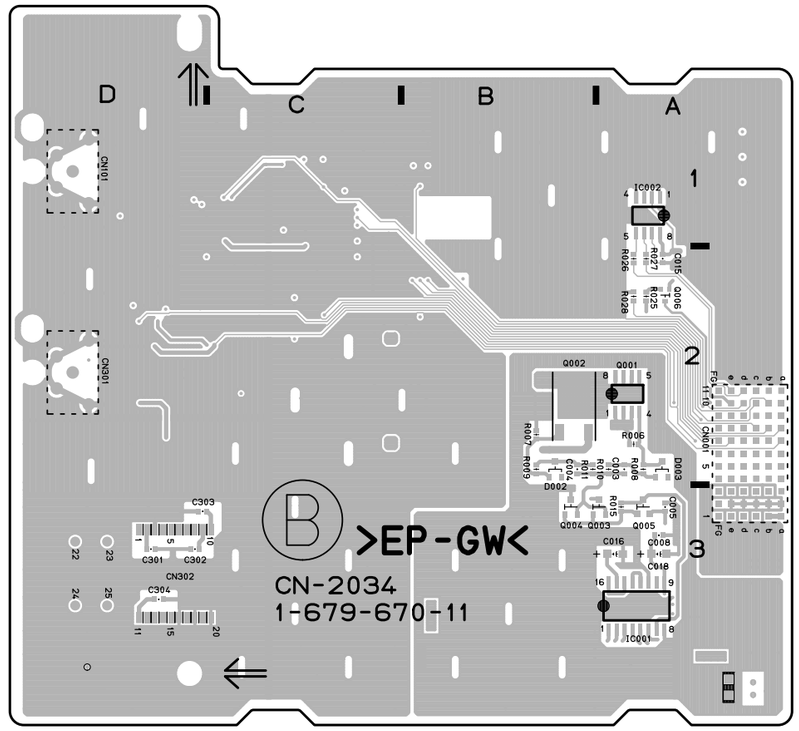
SUFFIX: -11

CN-2033 (1-679-669-11)

*:B SIDE

C1	B3	C211	C2	CN1	A2	L301	D2	R25	*A2	R327	D3	R431	C1
C2	B3	C212	C2	CN101	D1	L302	D3	R26	*A2	R329	D2	R432	A1
C3	*A2	C309	D3	CN301	D2	L303	D3	R27	*A2	R330	D3	R433	A1
C4	*B2	C311	D3	CN302	D3	L401	B1	R28	*A2	R331	D3		
C5	*A3	C312	D3	CN303	D3			R29	A2	R333	D2	TP1	B3
C6	A3	C313	*D3			Q1	*A2	R30	A2	R334	D3	TP101	B1
C7	A3	C315	D2	D1	B3	Q2	*B2	R103	C2	R335	D3		
C8	*A3	C316	D3	D2	*B2	Q3	*A3	R104	C1	R401	B2	X201	C2
C9	A3	C317	D3	D3	*A2	Q4	*B3	R105	C2	R402	B2		
C10	A3	C319	D2	D201	A1	Q5	*A3	R106	C2	R403	B2		
C11	A3	C320	D3	D401	C1	Q6	*A2	R107	D1	R404	B2		
C12	B3	C321	D3	D402	*C2	Q401	B2	R108	D2	R405	B2		
C13	A3	C323	D2	D403	A1	Q402	C1	R201	C2	R406	B2		
C14	A2	C324	D3	D404	A1	Q403	B2	R202	*C2	R407	B2		
C15	*B2	C325	D3					R203	C2	R408	B2		
C16	*A3	C401	B2	E1	D3	R4	B3	R204	*C2	R409	B2		
C17	A3	C402	B2	E2	D1	R5	B3	R205	C3	R410	B2		
C18	*A3	C403	B2	E3	B3	R6	*A2	R206	C2	R411	C1		
C19	A2	C404	B2	E4	C3	R7	*B2	R207	C2	R412	C1		
C101	*D1	C405	B2	E101	B1	R8	*A2	R208	A1	R413	C1		
C102	*D1	C406	B2			R9	*B2	R303	D3	R414	B1		
C103	*C1	C407	C1	F1	A3	R10	*A2	R307	C3	R415	C1		
C104	*D1	C408	C1			R11	*A2	R309	C2	R416	B1		
C105	*D1	C409	C1	IC1	*A3	R12	A3	R310	C3	R417	C1		
C106	C1	C410	C1	IC2	*B2	R13	A3	R311	C3	R418	C1		
C107	D2	C411	B1	IC101	C1	R14	A3	R312	D3	R419	B1		
C201	C2	C412	C1	IC201	C2	R15	*A3	R313	C3	R420	B1		
C202	C2	C413	C1	IC302	C2	R16	A3	R314	C3	R421	B1		
C203	C2	C414	B1	IC303	C3	R17	A3	R317	D2	R422	B1		
C204	*C2	C415	B1	IC304	C3	R18	A3	R318	D2	R424	C1		
C205	C2	C416	B1	IC401	B2	R19	A3	R319	D3	R425	B2		
C206	C2	C417	B1	IC402	B1	R20	A3	R320	D3	R426	B2		
C207	C2	C418	B1			R21	A3	R321	D3	R427	B2		
C208	C3	C419	C2	L1	B3	R22	A3	R322	D3	R428	C1		
C209	C3	C420	B1	L2	A2	R23	A3	R325	D2	R429	B2		
C210	C2			L3	A3	R24	A3	R326	D3	R430	B2		





HKPF-SP022 (SY) : S/N 10001 and Higher

CN-2034 -A SIDE-

SUFFIX: -11, 12

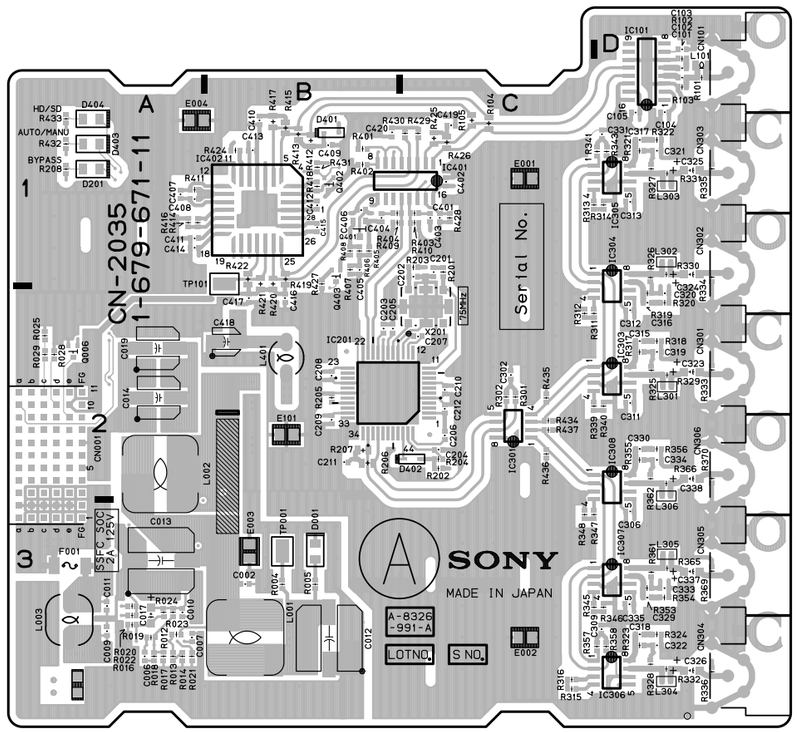
CN-2034 -B SIDE-

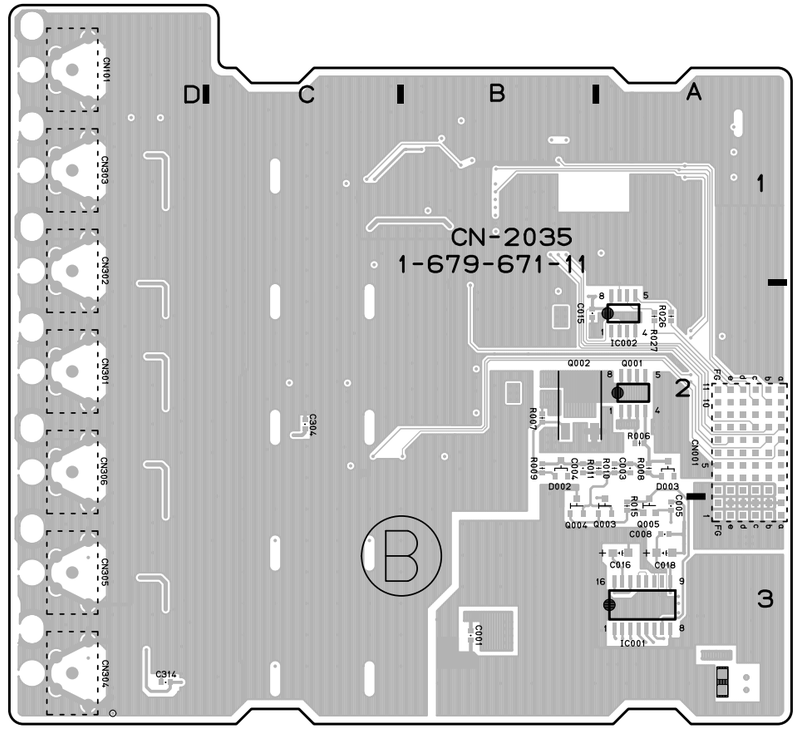
SUFFIX: -11, 12

CN-2034 (1-679-670-11, 12)

*:B SIDE

C1	B3	C301	*D3	D3	*A2	Q401	C1	R201	D1	R422	B2
C2	B3	C302	*D3	D201	A1	Q402	C1	R202	D2	R424	B1
C3	*A2	C303	*D3	D401	C1	Q403	C2	R203	C1	R425	C1
C4	*B2	C304	*D3	D402	D2			R204	D2	R426	C1
C5	*A3	C311	D2	D403	A1	R4	B3	R205	C2	R427	C2
C6	A3	C315	D2	D404	A1	R5	B3	R206	C2	R428	C1
C7	A3	C319	D2			R6	*A2	R207	C2	R429	C1
C8	*A3	C323	D2	E1	D2	R7	*B2	R208	A1	R430	C1
C9	A3	C401	C1	E2	D2	R8	*A2	R309	C2	R431	C1
C10	A3	C402	C1	E3	B3	R9	*B2	R310	D2	R432	A1
C11	A3	C403	C1	E4	B1	R10	*A2	R317	D2	R433	A1
C12	B3	C404	C1	E101	B2	R11	*B2	R318	D2		
C13	A3	C405	C2			R12	A3	R325	D2	TP1	B3
C14	A2	C406	C1	F1	A3	R13	A3	R329	D2	TP101	B2
C15	*A2	C407	B1			R14	A3	R333	D2		
C16	*A3	C408	B1	IC1	*A3	R15	*A3	R401	C1	X201	D1
C17	A3	C409	C1	IC2	*A1	R16	A3	R402	C1		
C18	*A3	C410	C1	IC101	D1	R17	A3	R403	C1		
C19	A2	C411	B2	IC201	C2	R18	A3	R404	C1		
C101	D1	C412	C1	IC302	C2	R19	A3	R405	C2		
C102	D1	C413	B1	IC401	C1	R20	A3	R406	C2		
C103	D1	C414	B2	IC402	B1	R21	A3	R407	C2		
C104	D1	C415	C2			R22	A3	R408	C2		
C105	D1	C416	C2	L1	B3	R23	A3	R409	C1		
C201	D1	C417	B2	L2	A2	R24	A3	R410	C1		
C202	C1	C418	B2	L3	A3	R25	*A2	R411	B1		
C203	C2	C419	C1	L101	D1	R26	*A2	R412	C1		
C204	D2	C420	C1	L301	D2	R27	*A2	R413	C1		
C205	C2			L401	C2	R28	*A2	R414	B1		
C206	D2	CN1	A2			R29	A2	R415	C1		
C207	D2	CN101	D1	Q1	*A2	R30	A2	R416	B1		
C208	C2	CN301	D2	Q2	*B2	R101	D1	R417	C1		
C209	C2	CN302	D3	Q3	*A3	R102	D1	R418	C1		
C210	D2			Q4	*B3	R103	D1	R419	C2		
C211	C2	D1	B3	Q5	*A3	R104	D1	R420	C2		
C212	D2	D2	*B2	Q6	*A2	R105	D1	R421	B2		





HKPF-SP003 (SY) : S/N 10001 and Higher

CN-2035 -A SIDE-

SUFFIX: -11

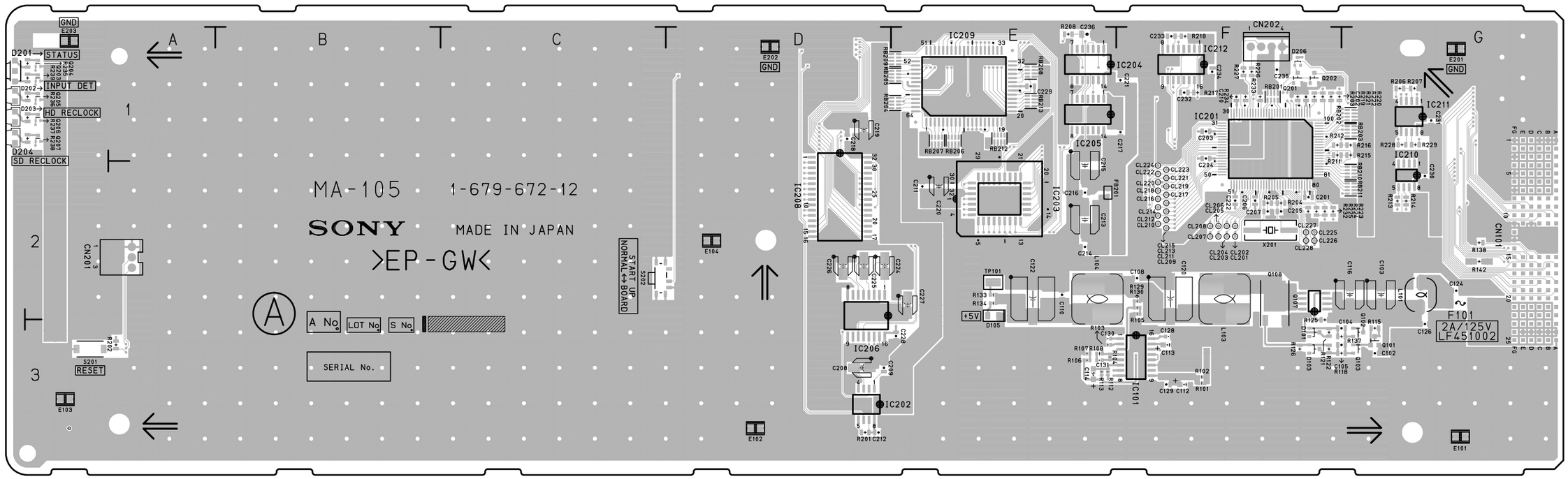
CN-2035 -B SIDE-

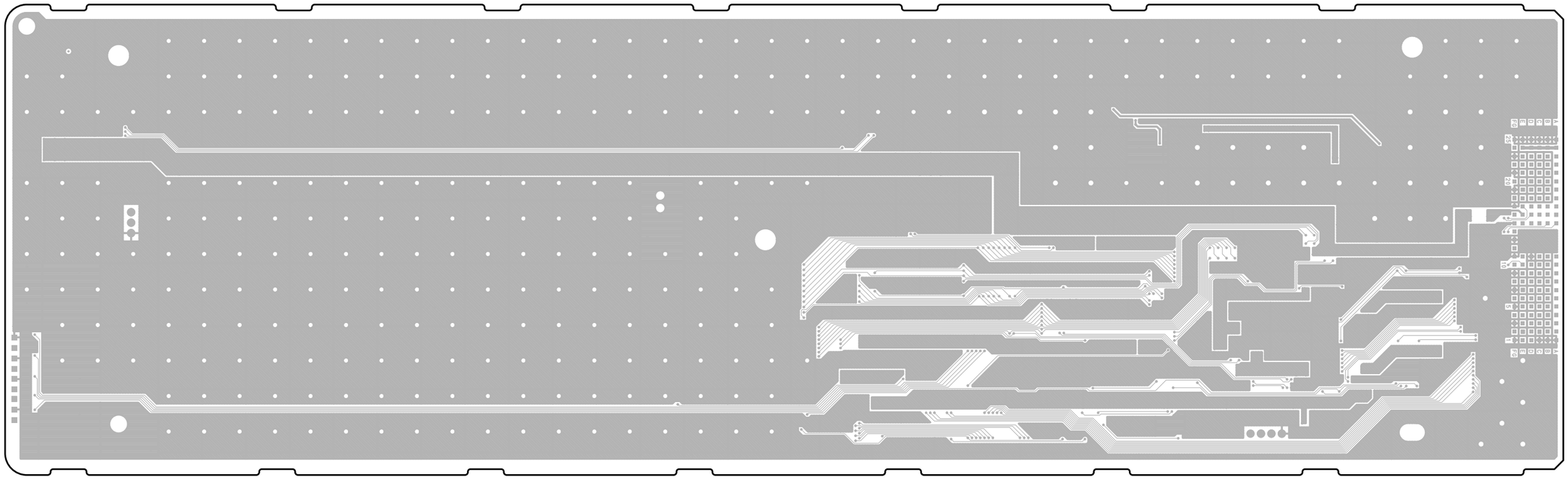
SUFFIX: -11

CN-2035 (1-679-671-11)

*:B SIDE

C1	*B3	C302	C2	C409	B1	F1	A3	Q403	B1	R204	C2	R343	D1	R420	B1
C2	B3	C304	*C2	C410	B1					R205	B2	R345	C3	R421	B1
C3	*A2	C306	D3	C411	A1	IC1	*A3	R4	B3	R206	B2	R346	D3	R422	B1
C4	*B2	C309	D3	C412	B1	IC2	*A2	R5	B3	R207	B2	R347	C3	R424	B1
C5	*A3	C311	D2	C413	B1	IC101	D1	R6	*A2	R208	A1	R348	C3	R425	C1
C6	A3	C312	D2	C414	A1	IC201	B2	R7	*B2	R301	C2	R353	D3	R426	C1
C7	A3	C313	D1	C415	B1	IC301	C2	R8	*A2	R302	C2	R354	D3	R427	B1
C8	*A3	C314	*D3	C416	B2	IC303	C2	R9	*B2	R311	C2	R355	D2	R428	C1
C9	A3	C315	D2	C417	B2	IC304	C1	R10	*A2	R312	C2	R356	D2	R429	C1
C10	A3	C316	D2	C418	B2	IC305	C1	R11	*A2	R313	C1	R357	D3	R430	C1
C11	A3	C317	D1	C419	C1	IC306	C3	R12	A3	R314	D1	R358	D3	R431	B1
C12	B3	C318	D3	C420	B1	IC307	C3	R13	A3	R315	C3	R361	D3	R432	A1
C13	A3	C319	D2			IC308	C2	R14	A3	R316	C3	R362	D2	R433	A1
C14	A2	C320	D2	CN1	A2	IC401	C1	R15	*A3	R317	D2	R365	D3	R434	C2
C15	*B2	C321	D1	CN101	D1	IC402	B1	R16	A3	R318	D2	R366	D2	R435	C2
C16	*A3	C322	D3	CN301	D2			R17	A3	R319	D2	R369	D3	R436	C2
C17	A3	C323	D2	CN302	D1	L1	B3	R18	A3	R320	D2	R370	D2	R437	C2
C18	*A3	C324	D1	CN303	D1	L2	A2	R19	A3	R321	D1	R401	B1		
C19	A2	C325	D1	CN304	D3	L3	A3	R20	A3	R322	D1	R402	B1	TP1	B3
C101	D1	C326	D3	CN305	D3	L101	D1	R21	A3	R323	D3	R403	C1	TP101	B1
C102	D1	C329	D3	CN306	D2	L301	D2	R22	A3	R324	D3	R404	B1		
C103	D1	C330	D2			L302	D1	R23	A3	R325	D2	R405	B1	X201	C2
C104	D1	C331	D1	D1	B3	L303	D1	R24	A3	R326	D1	R406	B1		
C105	D1	C333	D3	D2	*B2	L304	D3	R25	A2	R327	D1	R407	B1		
C201	C1	C334	D2	D3	*A2	L305	D3	R26	*A2	R328	D3	R408	B1		
C202	C1	C335	D3	D201	A1	L306	D2	R27	*A2	R329	D2	R409	B1		
C203	B2	C337	D3	D401	B1	L401	B2	R28	A2	R330	D1	R410	C1		
C204	C2	C338	D2	D402	C2			R29	A2	R331	D1	R411	A1		
C205	B2	C401	C1	D403	A1	Q1	*A2	R101	D1	R332	D3	R412	B1		
C206	C2	C402	C1	D404	A1	Q2	*B2	R102	D1	R333	D2	R413	B1		
C207	C2	C403	C1			Q3	*A3	R103	D1	R334	D1	R414	A1		
C208	B2	C404	B1	E1	C1	Q4	*B3	R104	C1	R335	D1	R415	B1		
C209	B2	C405	B1	E2	C3	Q5	*A3	R105	C1	R336	D3	R416	A1		
C210	C2	C406	B1	E3	B3	Q6	A2	R201	C1	R339	C2	R417	B1		
C211	B2	C407	A1	E4	A1	Q401	B1	R202	C2	R340	D2	R418	B1		
C212	C2	C408	A1	E101	B2	Q402	B1	R203	C1	R341	D1	R419	B1		





MA-105 -A SIDE-
SUFFIX: -11, 12

MA-105 -B SIDE-
SUFFIX: -11, 12

HKPF-SP021 (SY) : S/N 10001 and Higher
HKPF-SP022 (SY) : S/N 10001 and Higher
HKPF-SP003 (SY) : S/N 10001 and Higher

Location list : Next page

MA-105 (1-679-672-11,12)

C102	G3	D203	A1	R226	F1
C103	G2	D204	A1	R227	F1
C104	F3	D206	F1	R228	G1
C105	F3			R229	G1
C108	F2	E101	G3	R232	F2
C110	E2	E102	D3	R233	F1
C112	F3	E103	A3	R234	F1
C113	F3	E104	D2	R235	A1
C114	E3	E201	G1	R236	A1
C116	G2	E202	D1	R237	A1
C120	F2	E203	A1	R238	A1
C122	E2			R239	A1
C124	G2	F101	G2		
C126	G3			RB201	F1
C128	F3	FB201	E2	RB202	G1
C129	F3			RB203	G1
C130	E3	IC101	F3	RB204	E1
C131	E3	IC201	F1	RB205	E1
C201	F2	IC202	D3	RB206	E1
C202	F1	IC203	E2	RB207	E1
C203	F1	IC204	E1	RB208	E1
C204	F1	IC205	E1	RB209	E1
C205	F2	IC206	D2	RB210	G2
C206	F2	IC208	D1	RB211	G2
C207	F2	IC209	E1	RB212	E1
C208	D3	IC210	G2	RB213	E1
C209	D3	IC211	G1		
C210	F1	IC212	F1	S201	A3
C211	E2			S202	C2
C212	D3	L101	G2		
C213	E2	L103	F2	TP101	E2
C214	E2	L104	E2		
C215	E2			X201	F2
C216	E2	Q101	G3		
C217	F1	Q102	G3		
C218	D1	Q103	G3		
C219	D1	Q107	F2		
C220	E2	Q108	F2		
C221	F1	Q201	F1		
C222	F2	Q202	F1		
C224	D2	Q203	A1		
C225	D2	Q204	A1		
C226	D2	Q205	A1		
C227	E2	Q206	A1		
C228	E3	Q207	A1		
C229	E1				
C230	G2	R101	F3		
C231	G1	R102	F3		
C232	F1	R103	E3		
C233	F1	R104	E3		
C234	F1	R105	F2		
C235	F1	R106	E3		
C236	E1	R107	E3		
		R108	E3		
CL201	F2	R112	E3		
CL202	F2	R113	E3		
CL203	F2	R115	G3		
CL204	F2	R118	F3		
CL205	F2	R121	F3		
CL206	F2	R122	F3		
CL207	F2	R125	F3		
CL208	F2	R126	F3		
CL209	F2	R129	F2		
CL210	F2	R130	F2		
CL211	F2	R133	E2		
CL212	F2	R134	E2		
CL213	F2	R137	F3		
CL214	F2	R138	G2		
CL215	F2	R142	G2		
CL216	F2	R201	D3		
CL217	F2	R202	A3		
CL218	F2	R203	F1		
CL219	F2	R204	F2		
CL220	F2	R205	F2		
CL221	F2	R206	G1		
CL222	F2	R207	G1		
CL223	F2	R208	E1		
CL224	F2	R211	F1		
CL225	F2	R212	F1		
CL226	F2	R213	G2		
CL227	F2	R214	G2		
CL228	F2	R215	G1		
		R216	G1		
CN101	G2	R217	F1		
CN201	A2	R218	F1		
CN202	F1	R219	F1		
		R220	F1		
D101	F3	R221	F1		
D103	F3	R222	F1		
D105	E2	R223	F2		
D201	A1	R224	F2		
D202	A1	R225	F2		

Board layouts : Previous page

HKPF-SP021 (SY)
HKPF-SP022 (SY)
HKPF-SP003 (SY) J, E
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